APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TARDY, V.

On the 60th birthday of Dr. Jan Dolezal. Cesk. psychiat. 58 no.2: 130-133 Ap '62.

(BIOGRAPHIES)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

PETROV, G.N.; ROZENFEL'D, V.Ye.; KAGANOV, I.L.; PETROV, I.I.;
STAROSKOL'SKIY, N.A.; TARE, B.M.

Vasilii Aleksandrovich Iz"iurov. Elektrichestvo no.7:93 Jl
'60. (MIRA 13:8)
(Iz"iurov, Vasilii Aleksandrovich, 1885-)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TARE, R.

In the struggle for technological progress. Sov.profsoiuzy 5 no.1: 46-50 Ja '57. (MLRA 10:2)

1. Predsedatel' komiteta profsoyuza radiozavoda imeni Popova.
(Radio industry) (Trade unions)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TARCZY-HORNOCH, A.

Adjustment of continental triangulation nets. In German.

p. 429 (Acta Technica) Budapest, Hungary Vol. 16, no 3/4 1957

SO: Monthly Index of East European Acessions (AEEI) Vol. 6, No. 11 November 1957

PA 4T53

TAREEVA, A. I.

USSR/Toxicology
Hexachlorcyclohexane

Feb 1947

"Approximate Data on Investigations of the Toxic Features of Technical Mixture of Hexachlorcylohexane Isomers," A. I. Tareeva, 2 pp

"Farmakol i Toksikol" Vol X, No 2

Experimental data leading to the conclusion that doses of 200 and 500 milligrams do not cause any changes in the human skin.

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TARELKIN, Konstantin Danilovich; SINEL'NIKOVA, TS.B., red.; TSESARKIN, L.D., red.

[Fur goods] Pushno-mekhovye tovary. Moskva, Izd-vo "Ekonomika," 1964. 195 p. (MIRA 17:6)

BOYKO, Yu.A., inzh.; DOBROKHOTOV, V.I., inzh.; KISEL'GOF, M.L., kand. tekhn.nauk; PATYCHENKO, V.S., inzh.; POGORELOV, B.F., inzh.; TARELKIN, M.F., inzh.

Burning of lignite with a high moisture content. Elek. sta. 36 no.2:8-12 F '65. (MIRA 18:4)

RODZEVICH, N.V., inzh. (Kolomna); TARELKIN, Yu.V., inzh. (Kolomna)

Coating with caprone of the axle box supports of diesel locomotives. Elek. i tepl. tiaga 6 no.11:18 N '62. (MIRA 16:1)
(Diesel locomotives)

PUTILIN, V.N., inzh.; RODZEVICH, N.V., inzh.; TAREELKIN, Yu.V., inzh.

Use of capron for the axle end thrust bearings and bushings of the spring suspension for locomotives. Trudy VNITI no.19:214-223 '64. (MIRA 18:3)

TARELOV, A.S., inzhener.

Automatic feed check valves. Elek.sta. 28 no.1:77-79 Ja '57. (MIRA 10:3)

(Boilers--Safety appliances)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TARENKO, M.I.

5891 TARENKO, M.I. Metodika i tekhnika opredeleniya kolichestva pyli v vozdukhe. (metod. pis'mo). tbilisi, gruzmedgiz, 1954. 24s, s ill. 16sm (nauch.- issled. in-t gigiyeny truda i profzabolevaniy im. n. i. makhviladze m-va zdravookhraneniya gruz. ssr), 2.000ekz. bespl. -a vy. ukazan v kontse teksta.-na gruz. yaz.-
(55-499) 614.71-074

SO: Knizhnaya Letopis', vol. 1, 1955

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TARENKO, M.I.

MACHABELI, M.Ye., kand.med.nauk; TARENKO, M.I., nauchnyy sotrudnik;
GEMBASHIDZE, G.M., klinicheskiy ordinator

Sanitary and hygienic conditions of workers employed in spraying citrus trees with octamethyl and mercaptophos. Gig. i san. 22 no.7: 84-85 Jl '57. (MIRA 10:10)

1. Iz Instituta gigiyeny truda i professional'nykh zabolevaniy Ministerstva zdravookhraneniya Gruzinskoy SSR.
(INSECTICIDES, injurious effects,
phosphates, in spraying citrus trees (Rus))
(PHOSPHATES, injurious effects,
insecticides, in spraying citrus trees (Rus))

GOGUADZE, V., doktor khim.nauk, zasluzhennyy izobretatel' Gruzinskoy SSR;
TARENKO, M., nauchnyy sotrudnik

Lighting without burning. Izobr. i rats. no.10:12-13 '63. (MIRA 17:2)

1. Institut prikladnoy khimii i elektrokhimii AN Gruzinskoy SSR (for Tarenko).

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

SHVANGIRADZE, M.D.; TSKHADADZE, K.A.; TARENKO, M.I.; GOGUADZE, V.P.

Increase of the sensitiveness of nitrogen detection by the Lassaigne method. Zhur. anal. khim. 18 no.11:1399-1400 N '63. (MIRA 17:1)

1. Institut prikladnoy khimii i elektrokhimii AN GruzSSR, Tbilisi.

GOGUADZE, V.P.; TARENKO, M.I.

Color reaction for thiocyanate alkyls and the synthesis of new fluorescent dyes. Soob. AN Gruz. SSR 36 no.1:69-76 O '64. (MIRA 18:3)

1. Institut prikladnoy khimii i elektrokhimii AN Gruzinskoy SSR. Submitted March 6, 1964.

L 25799-66 EWA(h)/EWT(1) Monograph UR/ 28

ACC NR: AM6008542 B+1

Tarenenko, Zoya Il'inichna (Candidate of Technical Sciences); Trokhimenko, YAroslav Karpovich (Candidate of Technical Sciences)

Delay systems[25] (Zamedlyayushchiye sistemy) Kiev, Izd-vo "Tekhnika", 1965. 306 p. illus., biblio. 6000 copies printed.

TOPIC TAGS: delay circuit, traveling wave, cavity resonator

PURPOSE AND COVERAGE: This book is intended for the technical personnel of industrial enterprises and design offices, and may also be used by aspirants and students in advanced courses of radio engineering and radio electronic divisions of schools of higher education. It describes the properties of delay systems in shf cathode-ray tubes, using the extensive interaction of the electron beam with the traveling-wave field. General problems pertaining to traveling-wave propagation in delay systems are described. The electrodynamic characteristics of helical, pin, comb, and lumped-parameter delay systems and of cavity resonator circuits, as well as those of some special types of delay systems, are discussed. Methods for theorical and experimental investigation of delay systems and measurement of their basic parameters are presented.

UDC 621.385.6:621.372.81

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ACC NR: AM6008542

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L 25799-66

ACC NR: AM6008542

SUB CODE: 09/ SUBM DATE: 12Oct65/ ORIG REF: 165/ OTH REF: 122

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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TARENKOV, Ye.

International tourism and the services of passenger vessels. Mor. flot 25 no.8:40-41 Ag '65. (MIRA 18:8)

1. Kapitan teplokhoda "Feliks Dzerzhinskiy".

L 02993-67 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l) GD

ACC NR: AT6022699 SOURCE CODE: UR/0000/66/000/000/0334/0343

AUTHOR: Taresenko, V. P.

ORG: none

TITLE: Automatic optimization of several plants

31
20
B+1

SOURCE: Moscow. Institut avtomatiki i telemekhaniki. Samoobuchayushchiyesya avtomaticheskiye sistemy (Self-instructing automatic systems). Moscow, Izd-vo Nauka, 1966, 334-343

TOPIC TAGS: optimal automatic control, queueing theory, approximate solution

ABSTRACT: The aim of this paper is to determine probability distribution of states of a system of n plants and m optimizers (m<n), the average length of a queue in a servicing system under settled operating conditions, and the optimum number of optimizers. The case considered is one where the probability that an optimizer will find an extremum in no more than k steps is

$$p(k) = \sum_{0=1}^{k} (1-p)^0 p = 1-(1-p)^k \simeq 1-e^{-pk}. \quad (1)$$

and distribution density of arriving calls $\mu(t)$ coming from each plant for servicing is

$$\mu(t) = \lambda e^{-\lambda t}, \quad (t>0). \quad (2)$$

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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

... with an average ...

depending on the ... and variable final depth at 600–1100C

pression of 20, 40 and 60% (with similar initial depth and variable final depth at ...

(every 100C). The tests showed that at rolling temperatures above 900C the specific

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ACCESSION NR: AT4048082

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

ASSOCIATION: Laboratoriya plasticheskoy deformatsii [illegible]

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TARAT, E. Ya.

BORUSHKO, I.M., inzh.; BOKHOVCHUK, M.M., inzh.; FIDEL'MAN, G.S., inzh.; POZIN, M.Ye., doktor tekhn. nauk; TARAT, E.Ya., kand. tekhn. nauk.

Foam dust collectors used at the concentration plant of the "Apatite" Combine. Bezop. truda v prom. 2 no.2:9-11 F '58. (MIRA 11:2)

1. Kombinat "Apatit" (for Borushko, Bokhovchuk, Fidel'man). 2. Leningradskiy tekhnologicheskiy institut im. Lensoveta (for Pozin, Tarat).

(Dust collectors)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TARETEV, E. M., PROF.

USSR/Medicine - Infectious Hepatitis Dec 53

"The Clinical Aspects, Prophylaxis, and Treatment of Botkin's Disease in Hot Climates," Prof E. M. Tareyev, Active Mem Acad of Med Sci USSR, Moscow

Klin Med, Vol 31, No 12, pp 3-11

Enumerates some of the achievements attained by USSR science in research on infectious hepatitis. States that manifestations of this disease, in a hot climate, may involve special types of liver morbidity. Discusses transmission of the disease by inoculation. Advocates a wider use of anti-epidemic measures, and the use of specific

274T26

prophylaxis for this disease. Names as outstanding problems, the detn of the origin of Botkin's disease and development of specific methods for its treatment.

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VENGERSKAYA, Kh. Ya.; LYUBETSKIY, Kh. Z.; TAREVA, G.A.

Working conditions in testing new phosphate insecticides. Gig. i san. 24 no.5:12-17 My '59. (MIRA 12:7)

1. Iz Uzbekskogo nauchno-issledovatel'skogo sanitarnogo instituta.
(PHOSPHATES, pois.
insecticides, pre. in indust. (Rus))

TAREVEV, YE

Vnutrennie Bolezni (Internal Diseases)

950 p. 6.00

SO: Four Continent Book List, April 1954

TAREYEV, A.V.

PAVLOV, A.N., otv. za vypusk; VOLODICHEVA, V.N.; IVANOVA, A.I.; KULAKOV, I.N.; LYAMINA, T.N.; MIT'KINA, L.I.; POZDNYAKOVA, N.P.; RODIONOVA, L.I.; ROMANOVA, N.M.; SOFIYEV, E.S.; CHICHKINA, A.A.; TRESORUKOVA, Z.G.; BOGATYREV, P.P.; BROVKINA, A.I.; IVANOVA, L.D.; IVASHKIN, G.A.; KAMNEV, N.I.; LYSANOVA, L.A.; OZHEREL'YEVA, Z.I.; PAVLOVA, T.I.; TYUTYUNOVA, N.I.; UMNITSYNA, A.P.; ZHIVILIN, N.N.; ALESHICHEV, M.P.; VINOGRADOV, V.I.; YEREMIN, F.S.; KRAVCHENKO, Ye.P.; LOVACHEVA, M.V.; NIKOL'SKAYA, V.S.; MAKHOV, G.I.; SKEGINA, A.V.; TAREYEV, A.V.; KHOLINA, A.V.; BRYANSKIY, A.M.; BURMISTROVA, V.D.; GRIGOR'YEVA, A.M.; LUTSENKO, A.I.; OREKHOVA, Z.V.; TEPLINSKAYA, N.V.; FEOKTISTOVA, V.I.; BUTORIN, I.M.; BOCHKAREVA, L.D.; BURENINA, V.A.; VETUSHKO, A.M.; VIKHLYAYEV, A.A.; SOROKIN, B.S.; TSYBENKO, L.T.; KHLEBNIKOV, V.N.; DUMNOV, D.I.; STEPANOVA, V.A.; MANYAKIN, V.I., red.; VAKHATOV, A.M.; MAKAROVA, O.K., red.izd-va; PYATAKOVA, N.D., tekhn.red.

[Soviet agriculture; a statistical manual] Sel'skoe khoziaistvo SSSR; statisticheskii sbornik. Moskva, 1960. 665 p. (MIRA 13:5)

1. Russia (1923- U.S.S.R.) TSentral'noye statisticheskoye upravleniye. 2. Upravleniye statistiki sel'skogo khozyaystva TSentral'nogo statisticheskogo upravleniya SSSR (for all except Makarova, Pyatakova).

(Agriculture--Statistics)

TAREYEV, B.A.

Some applications of the absolute current method to the study of level variations of a shallow sea. Izv.AN SSSR Ser.geofiz. no.7: 813-820 Jl '56. (MIRA 9:9)

1.Akademiya nauk SSSR, Institut okeanologii.
(Ocean currents)

TAREYEV, B. A. Cand Phys-Math Sci -- (diss) "Certain Problems of the Theory of Wind-Caused Fluctuations of the Level of Shallow-Water Sea." Mos, 1957. 8 pp 20 cm. (Marine Hydrophysical Inst, Academy of Sciences USSR), 110 copies (KL, 27-57, 104)

49-58-5-4/15

AUTHOR: Tareyev, B. A.

TITLE: Drift Currents in a Shallow Sea under the Influence of a Wind Varying with Time (Dreyfovyye techeniya v melkovodnom more pod deystviyem peremennogo vo vremeni vetra)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1958, Nr 5, pp 605-612 (USSR)

ABSTRACT: The importance of this problem arises in the following way. In wide, but shallow reservoirs, e.g. Northern Caspian or Azov Seas, a period of time of the order of the natural oscillations in the basin is required, if a horizontal pressure gradient and current gradient is to be built up. In the case of an irregular, rapidly changing wind of the type often found in practice, the surface inclination will be small and, hence, the gradient component of the resulting current will also be small compared with the drift component. This is even more the case for local winds, e.g. in the region of the Mangyshlak peninsula. Thus, in many instances, the current which arises can be considered as purely due to drift. This is useful in practical cases, e.g. navigation, where, otherwise, a calculation must be based on the average wind field, which may change. The development of drift currents in an infinitely deep homogeneous sea in the presence of Coriolis

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forces and under the influence of a constant wind which arises suddenly was first solved by Fredgol'm (Ref.1). P.A. Kitkin generalized this solution for a sea of finite depth. A further generalization to a non-stationary wind field would lead to difficulties and, as V. B. Shtokman and V. A. Tsikunov (Ref.3) have shown, would not be of great interest. In deep seas, the current is distinguished by its relative stability and, hence, reacts less to a rapid change in wind field than the current in a shallow sea. In a shallow sea, Coriolis forces can be neglected in comparison with other forces; The author considers an infinite sea of depth h over which, from the time $t = 0$, a spatially homogeneous wind blows. The wind can change arbitrarily in magnitude and direction. Co-ordinates are taken with x and y in the sea's surface and z vertically downwards. Since the continuity condition holds, only one horizontal direction (x) is considered. Eq.(1) gives the equation of motion and Eq.(2) the boundary conditions.

$$\frac{\partial u}{\partial t} = \frac{\partial}{\partial z}\left[\nu(z)\frac{\partial u}{\partial z}\right] \qquad (1)$$

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$$\frac{\partial u}{\partial z} = \frac{T(t)}{\rho \nu} \quad \text{at } z = 0; \; u = 0 \text{ at } z = h; \; u = (z,0) = U_0(z) \qquad (2)$$

u is the velocity component along the x-axis, $\nu(z)$ is the kinematic coefficient of turbulent viscosity which, generally speaking, depends on z ; ρ is the constant density; T(t) is the tangential stress of the wind along the axis (a given function of time which depends only on certain, very general, conditions). Consider first the simplest case with periodic boundary conditions which gives a closed solution. ν is taken to be constant and Eqs.(1) and (2) written in the form Eqs.(3) and (4), where $\mathfrak{U}(z,t)$ is a complex function, the real part of which equals $u(z,t)$. Substituting $\mathfrak{U}(z,t) = e^{-i\omega t}Z(z)$, a differential equation is obtained which is integrated in accordance with the boundary conditions to give:

$$\mathfrak{U}(z,t) = e^{-i\omega t} \frac{T_0}{\gamma\mu} \frac{\sin \gamma(h-z)}{\cos \gamma h} .$$

Separating the real and imaginary parts of this expression, Eq.(6) is obtained. In the case of an arbitrarily time-varying tangential stress, an elementary solution can be

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obtained from Eq.(3). F'el'stad (Ref.4) and Khidaka (Ref.5) have shown that the result is Eq.(8), which changes into Eq.(9) for T = const. A numerical example for a periodically varying wind is given. The period of tangential stress change $\tau = 2\pi \times 10^4$ sec $\sim$ 17.5 hours, coefficient of turbulent kinematic viscosity, $\nu = 50$ cm^2/sec. Taking the unit of length to be 1 m and unit of time 10^4 sec; $\nu = 50$, $\omega = 1$, and $\alpha = \sqrt{\frac{\omega}{2\nu}} = 0.1$ m^{-1} . Fig.1 shows the results obtained for the velocity distribution with depth at different times. As can be seen from Fig.1, in the layer from $z = 0.46$ h to the bottom a counter-current is observed periodically. Observation of suitable velocity distributions in natural conditions might lead to incorrect conclusions concerning the gradient of these counter-currents, if the non-stationary wind field is not considered. Eqs.(6) and (7) permit the calculation of the stress at the bottom. Fig.2 shows the variation with time of the tangential wind stress at the surface and the

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tangential stress at the bottom, whilst Eq.(11) gives the result based on the figures introduced above. Fig.2 and Eq.(11) indicate that the greatest possible value of the ratio $T_{bottom}/T_{surface} = 0.77$. However, Francis' (Ref.6) experiments show that this ratio does not exceed 0.03 in practice. It is obviously necessary to take into account the variation of ν with depth. This is done by employing Eq.(12) which gives a linear variation with depth to a small distance from the bottom, characterized by the empirical parameter ε. It can be considered that ε is proportional to the thickness of the laminar layer - F'el'stad thinks that $\varepsilon/h \sim 10^{-2} - 10^{-3}$ (Ref.7). Choice of this parameter becomes more objective if it is assumed that the coefficient of turbulent velocity near the bottom is equal to the coefficient of normal molecular viscosity. In Eq.(12) ν_0 is the coefficient of turbulent viscosity at the surface. Hidaka (Ref.8) considered the case of ν varying with depth (with $\varepsilon = 0$). The author now considers the case with non-vanishing viscosity at the bottom. Eq.(1) is rewritten in the form Eq.(13) and the boundary conditions, Eq.(2) are

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used with $u_0(z) \equiv 0$. A solution of the form Eq.(14) is looked for with the boundary and initial conditions Eq.(15) and (16). This gives Eq.(17) into which the substitution $\bar{u} = G(t)R(z)$ is made. Changing the independent variable z a differential equation for R is obtained, with the boundary conditions (Eq.20). The integral of this can be written in the form Eq.(21), where J_0, N_0 correspond to the Bessel and Neumann functions of zero order and γ_n is the root of the transcendental equation (Eq.22). A general solution of Eq.(17) by series is now sought, with change to a new variable y. Employing formula (19) and the expression for the Wronshian cylindrical function of zero order, the coefficients C_n' and C_n'' in Eqs.(24) and (25) are defined. The boundary conditions (Eq.20) and an integral formula for Z_0 (any solution of Bessel's equation of zero order) are now used to determine $\|R_n\|^2$. Eq.(27) is now obtained from Eqs.(23), (17), (18), (24) and (25), and is integrated.

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The final solution is found in the form of Eq.(29): all the calculations can be carried out with the variable y, and the change to z left until the final stage. If ν_0 is put equal to zero, as was done by Hidaka, the solution is made much simpler since the Neumann function disappears. The solution can also be used for a viscosity coefficient varying with time as in Eq.(30) - this gives Eq.(31). If we assume the coefficient to be constant with time this implies that turbulence is fully developed throughout all the region. However, in a shallow sea, a non-stationary wind produces a turbulent viscosity varying with time. Unfortunately, the time dependence cannot be determined owing to the absence of data. In the case of a suddenly arising wind which thereafter remains constant, it is natural to use: $f(t) = (1 - e^{-\omega t})$ in Eq.(30), where $\omega (> 0)$ is a parameter, characterizing, to a first approximation, the development of turbulence in a sea under the influence of a wind. Using this $f(t)$, the exponential factor m (Eq.9), characterizing the change of current velocity with time has the form:

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$$\exp\left\{-\nu\left(\frac{2n+1}{2h}\pi\right)^2\left[t-\frac{1}{\omega}\left(1-e^{-\omega t}\right)\right]\right\}$$

for sufficiently large t, this approximates to:

$$\exp-\left[\nu\left(\frac{2n+1}{2h}\pi\right)^2\left(t-\frac{1}{\omega}\right)\right]$$

In other words, with a ν increasing exponentially from zero to a fixed value, a certain fixed velocity will be observed at the moment $t_1+\frac{1}{\omega}$, whereas with ν = constant this value will be observed at t_1. In view of the function used, the velocity at the start will increase very rapidly with time, which seems to be confirmed by

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observations in the North Caspian. A more detailed estimate cannot be made without more information on the function f(t). There are 2 figures and 8 references, of which 3 are Soviet, 3 German and 2 English.

ASSOCIATION: Akademiya nauk SSSR, Institut okeanologii (Academy of Sciences, USSR, Institute of Oceanography)

SUBMITTED: February 21, 1957.

1. Ocean currents--Meteorological factors

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SOV/49-58-9-12/14

AUTHOR: Tareyev, B.A.

TITLE: Stationary Circulation due to Wind in a Square Basin of Small Depth (Statsionarnyy vetrovoy nagon i tsirkulyatsiya v pryamougol'nom basseyne maloy glubiny)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1958, Nr 9, pp 1139 - 1144 (USSR)

ABSTRACT: It is shown in Ref 1 that if horizontal viscosity and non-linear terms are ignored, the question of stationary wind circulation in a shallow sea depends on the solution of the equation:

$$\frac{\partial}{\partial x}\left(\frac{1}{h^3}\frac{\partial\phi}{\partial x}\right)+\frac{\partial}{\partial y}\left(\frac{1}{h^3}\frac{\partial\phi}{\partial y}\right)=\frac{1}{2\mu}\,\mathrm{curl}_z\,\frac{T}{h} \qquad (1)$$

where $h(x, y)$ is the depth of the sea, $T(x, y)$ is the tangential stress of the wind on the surface, μ is the coefficient of vertical turbulent viscosity and ϕ is defined by the Eqs.(2). Eq.(1) has the boundary condition (3) on the contour Γ of the sea, i.e. the component of

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the total current normal to the shore line equals zero. Having solved Eq.(1) with this boundary condition, the inclination and velocity components can be found from Eqs.(4) and (5).

Obviously, Eq.(1) has no significance for $h \to 0$; in particular, the inclination of the level increases without bound. This singularity is due to the fact that near $h \to 0$, the perturbation of the level ζ, cannot be considered small compared with h. In numerical integration, this can, of course, be avoided by assuming the coastline to be a vertical step.

The present article considers a constant depth basin. For small depths, the Coriolis forces can be ignored and, hence, Eq.(1) reduces to:

$$\Delta\psi = \frac{h^2}{2\mu} \operatorname{curl}_z \underline{T} \qquad (6)$$

One method of solving the equation has been given by Leibenson (Ref 2), who assumed that the coefficients of the vertical and horizontal turbulent exchange were of the

Stationary Circulation due to Wind in a Square Basin of Small Depth

same order.
The author assumes the $\psi = X(x) \cdot Y(y)$ and separates the variables. For a basin of width ℓ and length $2L$, the boundary conditions become

$$\psi = 0 \text{ when } x = 0, \ell \text{ and } y = \pm L .$$

It is assumed first that the wind blows along the y-axis and changes only along the x-axis. Then:

$$T_x = 0; \quad \text{curl}_z \underline{T} = \frac{dT_y(x)}{dx} .$$

Assuming X proportional to $\sin \lambda_n x$, gives Eq.(9). Y_n is then found from Eqs.(9) and (10) and, hence, the general solution of (6), satisfying the conditions (8), has the form (12). If the length of the basin along the z-axis is very great (i.e. a canal), Eq.(12) simplifies to give (15) for the inclination of the level. Thus, the free surface has the form of a plane (an analogous result was obtained by A.I. Felzenbaum (Ref 1)). The author next considers the general case ($L \neq \infty$). The centre of co-ordinates is now moved to the centre of the basin (Figure 1) so that the boundary conditions become Eq.(16). It can be seen from Eq.(7) that the solution will depend on cos $a_n x$ (where:

$$a_n = \frac{\pi}{2} \cdot \frac{2n + 1}{\ell} \quad \text{for } n = 0,1,2...$$

$\mathrm{curl}_z \underline{T}$ is denoted by $f(x, y)$ and an equation, analogous to (9), is obtained for $Y_n(y)$. Integration of this gives Eq.(18) for ψ. It is next assumed that the circulation can be expressed in the form:

$$T_x = a_1 y + b_1 \; ; \quad T_y = a_2 x + b_2 \qquad (19)$$

so that: $\dfrac{\kappa^2}{2\mu} \mathrm{curl}_z \underline{T} = \mathrm{const.}$

Stationary Circulation due to Wind in a Square Basin of Small Depth

This gives Eq.(20) for ψ, which can be rewritten in the form (20a). It can be seen from Eqs. (6) and (16) that horizontal circulation is absent, not only for a constant wind but also when the field of the tangential wind stress is variable but is a scalar potential.
The author next considers the case when $T_x = 0$, $T_y = ax + b$ (wind along the y-axis, the change in tangential stress characterised by a). This can be reduced, using Eqs.(20a) and (4), to an approximate expression for $\partial \zeta / \partial x$, the inclination in a direction transverse to the wind. This can be simplified further near $y = \pm L$ if $L \gg 2l$, since :

$$\frac{\operatorname{ch}\left[\frac{2n+1}{2l}\pi(\pm L)\right]}{\operatorname{ch}\left[\left(\frac{2n+1}{2l}\right)\pi L\right]} \approx \pm 1 .$$

SOV/49-58-9-12/14

Stationary Circulation due to Wind in a Square Basin of Small Depth

It follows from the expressions for $\partial\psi/\partial x$ and $\partial\psi/\partial y$ that, for $y = 0$, $S_x = 0$ and, for $x = 0$, $S_y = 0$. The difference is that, in the first case, both the total current and the x component = 0. Figure 1 shows diagramatically the general character of the circulation corresponding to Eq.(20) for $a_2 = a$, $a_1 = 0$. It can be seen that for $a > 0$, a cyclonic circulation is obtained and with $a < 0$ an anticyclonic. Circulation in an actual basin is, of course, more complicated than that described owing to the neglect of horizontal turbulent viscosity in the above calculations. However, the inclusion of this factor in the equations would lead to excessive difficulty in solution.

Card 6/7

SOV/49-58-9-12/14

Stationary Circulation due to Wind in a Square Basin of Small .Depth

There are 1 figure and 2 Soviet references.

ASSOCIATION: Akademiya nauk SSSR, Institut okeanologii (Ac.Sc. USSR, Institute of Oceanology)

SUBMITTED: October 3, 1957

Card 7/7

TAREYEV, B.A.

FEDEROV, K.N.; BOGOROV, V.G.; and TAREYEV, B.A.

"The depths of the ocean and the problem of waste disposal therein."

report presented at the Scientific Conference on the Disposal of Radioactive Wastes, Monaco, November 1959.

3

TAREYEV, B. A., FEDOROV, K. M. and BOGOROV, V. G.

"The Depths of the Ocean and the Problem of Waste Disposal Therein."

report presented at the Scientific Conference on the Disposal of Radioactive Wastes, Monaco, 16-21 November 1959.

SOV/20-127-5-19/58

3(9)

AUTHOR: Tareyev, B. A.

TITLE: On Free Convection in Deep-water Cavities of the Oceans

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 5, pp 1005-1008 (USSR)

ABSTRACT: In cooperation with the problem of the sinking of radioactive waste products of the atomic industry into the oceans, the author investigates the possibility of water circulation in great depths. It follows from observations that a noticeable superadiabatic temperature increase occurs with increasing depth. This phenomenon is explained by geothermal heat supplies. Therefore, the entire depth must be divided into two layers which are separated by that surface, on which the gradient of the potential temperature passes through zero. The lower layer, in which the potential temperature increases with depth, is described as convective layer by the author. Rayleigh (Ref 2) already pointed out that at a certain value of the dimensionless parameter (Rayleigh number R) convection currents may occur in a horizontal layer of water, which is heated from below. As in the present case the rotation of the earth must be taken into account, the system of equations is written down for the

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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

SOV/20-127-5-19/58

On Free Convection in Deep-water Cavities of the Oceans

Coriolis forces, and the boundary conditions for the surface separating the convective layer and the water masses on the opposite side, as well as the thresholds of instability are deduced. The values found show that already at very small negative superadiabatic temperature gradients (0.01° to 100 m), the Rayleigh numbers are above the critical value, and that convection must occur in spite of the stabilizing effect of the rotation of the earth. There are 1 figure and 4 references, 1 of which is Soviet.

ASSOCIATION: Institut okeanologii Akademii nauk SSSR (Institute of Oceanography of the Academy of Sciences, USSR)

PRESENTED: April 30, 1959 by V. V. Shuleykin, Academician

SUBMITTED: April 30, 1959

Card 2/2

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

S/010/60/000/004/002/006/XX
A053/A026

AUTHORS: Bogorov, V.G.; Tareyev, B.A.

TITLE: Oceanic Depths and the Problem of Dumping Radioactive Waste

PERIODICAL: Izvestiya Akademii nauk SSSR, seriya geograficheskaya, 1960, No. 4, pp. 3 - 10

TEXT: The authors refer to the recommendation given by V.G. Bogorov and Ye.M. Kreps at the II International Conference on the Peaceful Utilization of Atomic Energy in Geneva in September 1958, to the effect that the dumping of radioactive waste in depths of the ocean should not be permitted. In this article the authors furnish new proof in favor of their viewpoint based on the latest observations made by Soviet and foreign oceanologists, in particular on the occasion of the Danish expedition on the SS Galatea in 1952 and the Soviet expedition on the SS Vityaz' in 1958. The article compares the 23 deepest depressions in the Pacific, the Atlantic and the Indian Ocean, in indicating maximum depths and their location. It also gives information on the prevailing temperatures at various depths ranging from 0 to 10,000 m in different areas and at different seasons. These temperatures even at maximum depths are subject to variations

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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

S/010/60/000/004/002/006/XX
A053/A026

Oceanic Depths and the Problem of Dumping Radioactive Waste

which permits to conclude that nowhere the water is stagnant but constantly on the move, however slow this movement may be in certain places. The vertical movement of the water in the depths of the Philippine and the Bougainville depressions have been calculated as being $10^{-4}cm^2/sec$ or about 30 - 50 m per annum. The speed of horizontal movement of ocean water as a rule exceeds by far that of vertical movement, particularly in the upper layers. The article refers to investigations carried out in recent years pertaining to depth circulations, mentioning the findings of Doctor Swallow and of Doctor Laughton. The article cites a number of other phenomena, which all tend to prove the movement of water, resulting in a continuous agitation and mixing process, which creates favorable conditions to the development of life, even down to the greatest oceanic depths. During deep-sea trawling of the Vityaz' in 1958 in the Pacific, going down to a depth of 10,700 m, the existence of fauna was revealed even in these ultraabyssal depths, consisting of sponges, worms, mollusca, etc, though in small quantities, because at a distance of 10 km from the photosynthetizing layers only very little food is brought down. Life in the mass of water is in a state of constant migration. Even plankton covers considerable distances. The migration of ani-

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Oceanic Depths and the Problem of Dumping Radioactive Waste

mals and biocirculation are a powerful means of transportation of all kinds of substance including absorbed radioactivity. Harley found that in a district west of the Bikini Atoll radioactivity of plankton was 470 times greater than elsewhere in the ocean. Japanese authors state that as a result of radioactive fallout infected fishes were found near the Marshall Islands, later on near the Caroline Islands and further north near Taiwan and the Bonin Isles. Fishes caught within a radius of 3,000 km of the district of Bikini had to be destroyed on account of their radioactivity. This district being the spawning place of tuna and swordfish, it is likely that its contamination by radioactive fall-out will be of far-reaching consequences in the way of infected tunafish, in which connection the authors refer to the findings of the Japanese scientists Y. Miyake and Y. Suguira. Interesting in this respect is also the theory developed by R.H. Ketchum and T.V. Bowen concerning the physical and biological transfer of different substances, concluding that biological transfer often exceeds the role of the physical mixing process. In respect to biocirculation a great deal of research work remains yet to be done, especially in deep-water circulation, although it is known that big plankton migrates in deep layers (down to 6 km). Thus radioactive waste buried in the depth of the ocean, when dissolved will rise

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A053/A026

Oceanic Depths and the Problems of Dumping Radioactive Waste

by means of physical as well as biological circulation and eventually endanger the life of human beings. The theory that the radioactive substances after a while will be dispersed and in a dissolved state mix with the entire mass of water is ill founded. Water currents are localized and the same refers to biocirculation following a certain cycle. The authors agree with H.T. Dunster that the disposal of radioactive wastes in coastal waters is highly dangerous, and so is the dumping of such wastes in the depths of the ocean. Further investigation and research work should clarify in particular: "The behaviour of radioactive substances in the ocean." - "The accumulation of radioactive substances in marine organisms and their tissues." - "The age of different layers of water and the duration of a certain mass of water remaining in a given layer, types and speeds of mixing processes." - "Speeds of vertical and horizontal circulations of different layers." - "Biocirculation, daily, seasonal, multiannual." - "Geo-chemical factors influencing distribution of radioactive substances". There are 16 references: 9 Soviet, 6 English and 1 Japanese.

ASSOCIATION: Institut okeanologii AN SSSR (Institute of Oceanology, Academy of Sciences, USSR)

Card 4/4

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B.A.

Theory of convection circulation in oceanic trenches. Izv. AN SSSR.Ser.geofiz. no.7:1022-1029 Jl '60. (MIRA 13:7)

1. Akademiya nauk SSSR, Institut okeanologii.
(Ocean currents) (Ocean bottom)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

IVANOV, Yu.A.; TAREYEV, B.A.

Calculating the vertical velocity component of drift currents. Trudy MGI 22:3-4. '60. (MIRA 14:3)

(Ocean currents)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B. A., and FOMICHEV, A. V.,

"Geostrophic currents in the Antarctic sector of the Pacfic."

To be submitted for the 10th Pacfic Science Congress, Honolulu, 21 Aug. - 6 Sep 1961.

Institute of Oceanology.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

NAUMOV, A.G.; ZERNOVA, V.V.; IVANOV, Yu.A.; TAREYEV, B.A.

Frontal zones and biogeographic division of the surface waters (0 - 500m.) of the southern part of the Pacific Ocean based on plankton. Trudy Inst.okean. 58:54-66 '62. (MIRA 15:12)

(Pacific Ocean—Plankton)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B.A.

Estimation of the nature of heat convection and turbulent heat conduction as applied to the Antarctic circumpolar waters. Okeanologiia 2 no.1:31-43 '62. (MIRA 15:2)

1. Institut okeanologii AN SSSR.
(Antarctic regions--Ocean temperature)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B.A.

Internal waves in an ocean inhomogeneous with respect to density. Dokl. AN SSSR 149 no.4:827-830 Ap '63. (MIRA 16:3)

1. Institut okeanologii AN SSSR. Predstavleno akademikom V. V. Shuleykinym.

(Seawater—Density) (Waves)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B.A.

9

Internal baroclinicn waves in flowing around the irregularities of the bottom and their effect on processes of sediment formation. Okeanologiia 4 no.5:915 '64 (MIRA 18:1)

X

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B.A.

Possibility of the formation of natural vertical convection in some regions of the Indian Ocean. Trudy Inst. okean. 64:50-62 '64. (MIRA 17:7)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B.A.

Internal baroclinic waves observable during the flow around the unevennesses of the floor and their influence on the deposit-forming processes in the ocean. Okeanologiia 5 no.1: 45-51 '65. (MIRA 18:4)

1. Institut okeanologii AN SSSR.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B.A.

Quasi-geostrophic instability of ocean currents. Dokl. AN SSSR 162 no.1:74-77 My '65. (MIRA 18:5)

1. Institut okeanologii AN SSSR. Submitted September 17, 1964.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

ACC NR: AR7004103 (N) SOURCE CODE: UR/0169/66/000/012/V021/V021

AUTHOR: Tareyev, B. A.

TITLE: Some consequences of the dyanmic instability of ocean currents

SOURCE: Ref. zh. Geofizika, Abs. 12V127

REF SOURCE: Sb. 2-y Mezhdunar. okeanogr. kongress, 1966. Tezisy dokl. M., Nauka, 1966, 368

TOPIC TAGS: ocean current, approximation method, perturbation, ocean current instability

ABSTRACT: The problem of the stability of geostrophic baroclinic zonal ocean currents is studied with methods of approximation. The solution takes into account the vertical shift of main current velocity, vertical motions, stratification, β-effect, inertial forces, and the horizontal eddy viscosity. Internal waves were filtered by introduction of a quasi-geostrophic approximation of the perturbation field. It is shown that for the real values of oceanographic parameters, the intense circulation systems such as the Gulf Stream, Kuroshio, and trade wind currents are dynamically

 UDC: 551.465.55

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

ACC NR: AR7004103

unstable, and, consequently, cannot be steady. Periods of unstable, large-scale quasi-geostrophic perturbances occurring on the background of the main current have a duration of several days to several weeks. These periods are determined by the natural dynamic structure of the current and do not depend on the action of external factors (changes in tangential stress of the wind, influx of heat from the atmosphere etc). The wavelength of the more unstable large-scale oceanic perturbations is of the order of several hundred kilometers. The natural scale of horizontal turbulences must be accordingly of the same order. In connection with the phenomena of instability, the possibility of forecasting time variations of ocean currents is naturally reduced. However, some statistical characteristics of spectral function type can be calculated on the basis of the mean values of characteristic quantities (shift of velocity, stratification etc). The absence of long series prevents a comparison of calculations with observations. However, coordinated surveys in the Gulf Stream region show that the calculations yield a correct order of values. Some evaluations show that unsteady increasing (and fading) perturbations play a substantial role in the energy balance of the mean oceanic circulation. [Translation of abstract]

[DW]

SUB CODE: 08, 12/

Card 2/2

APPROVED FOR RELEASE: Thursday, September 26, 2002

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

5

The Oxidation of Light Metals. B. M. Tarrev (*Legkie Metalli* (*Light Metals*), **1932**, (12), 42-48).—[In Russian.] A description of methods of oxidizing aluminium, as employed in the U.S.S.R. and abroad, for increasing its anti-corrosion properties and especially for insulation purposes.—D. N. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

MATERIALS INDEX

AUTHOR INDEX

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PROCESSES AND PROPERTIES INDEX

The Use of Light Metals in the Electrical Industry. B. M. Tareev (*Legkie Metalli* (*Light Metals*), [illegible], (1), 17-22).—[In Russian.] An examination of the feasibility of using light metals and alloys as electrical conductors.

D. N. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755510006-6

1ST AND 2ND ORDERS 3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

21

Pistons of Light Alloys. B. M. Tareev (*Legkie Metalli* (*Light Metals*), **1932**, (5), 29-30). [In Russian.] Advantages and drawbacks of pistons for internal combustion engines made from light alloys are enumerated and a list of such alloys is given.- D. N. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RD[illegible]005-6

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

M

11

Substitution and Economy of Non-Ferrous Metals in the Electrical Industry. B. M. Tarevy and A. U. Shpurt (*Vestnik Elektropromishlennosti* (*Messenger Elect. Ind.*), 1936, (7), 15–18). —N. A.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6

Electrochemical phenomena in dielectrics. II. Diverting of particles by a transverse field. B. M. Tareev. *Colloid J.* (U. S. S. R.) 3, 581-2(1937).—It is shown on theoretical grounds that colloidal particles undergoing electrophoresis or moving under some external force can be diverted from their path by means of a transverse magnetic or elec. field. S. L. Madorsky

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Ca

2

Electrokinetic phenomena in dielectrics. III. Conductivity of colloidal systems of various concentrations, colloidal particle sizes and temperatures. B. M. Tareev and V. A. Baev. *Colloid J.* (U. S. S. R.) 3, 771-5 (1937); cf. *C. A.* 32, 6129[7].—Math. Equations are given showing electrocond. of colloidal systems as a function of concn. and particle size of the dispersed phase and of temp. Electrocond. increases with increase of concn. and particle size. With rise of temp. electrocond. at first increases, then passes through a max. and finally decreases. The electrocond. of a colloidal system may be greater than that for each phase separately.

S. L. Madorsky

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755100006-6"

CA

13

Castor oil as a dielectric. B. M. Tareev and G. I. Raichinskaya. *Vestnik Elektroprom.* 1939, No. 10-11, 37-41. The chem., elec. and phys. properties of castor oil are reviewed. The dielec. resistance of castor oil is of of the same order as transformer oil or Sovol. The resistance is lowered by addn. of water but is not affected by addns. of transformer oil and Sovol in amts. up to 30%. The sp. vol. resistance of castor oil and mixts. thereof with 1-5% of transformer oil or Sovol is of the order of 5×10^{12} - 8×10^{12} ohm-cm. Mixts. of castor oil with 1-5% water are conducting. B. Z. Kamich

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

Cy

2

Thermal conductivity of colloidal systems. B. M. Tareev. *Colloid J.* (U. S. S. R.) 6, 545–50(1940).—The approx. value of the heat cond. (κ) of a system of spheres in a homogeneous medium can be calcd. by the formula: $\kappa = (2 + n + 2c(n - 1))/(2 + n - c(n - 1))$ where c is the vol. concn. of sphere material and n is its thermal cond. A. A. Podgorny

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

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3RD AND 4TH ORDERS

13

CA

Heat-resistant micanites. B. M. Tareev, L. A. Epshtein and K. I. Chernyak. *Vestnik Elektroprom.* 11, No. 3, 35-6(1940); *Chem. Zentr.* 1940, II, 1781.—Micanites prepd. from mica waste and either Na silicate or an alkyd were tested for use in electric heaters (resistors): both types were satisfactory. M. Hosch

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Thursday, September 26, 2002 C[redacted]006-6"

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22

Substitutes and the Saving of Lead in the Cable Industry. B. M. Tarry and V. A. Privesentsov (*Vestn. Elektroprom.* (*Elect. Ind. Herald*), 1941, **12**, (5), 11-14; *C. Abs.*, 1943, **37**, 3674).—A literature survey.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

CA 13

Artificial-mica problem. B. M. Te-rev. *Vestnik Elektroteh.* 1943, No. 3, 7-12.—Discussion of the use of bentonite in mica substitutes. G. M. Kosolapoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B.M.

The production of glass electric resistors, Moskva, Gos. energ. izd-vo, 1944.
26 p. (50-44428)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREEV, B. M.

Electrical engineering materials, Moskva, Gos. energ. izd-vo, 1946. 231 p. (50-19007)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B. M.

TAREYEV, B. M.

Tareyev, B. M. defended his Doctor's dissertation in the Moscow Power Engineering Institute im Molotov, USSR, on 18 April 1943, for the academic degree of Doctor of Technical Sciences.

Dissertation: "Heat-Stable Electrical Insulation". Resume: Tareyev treated factors affecting the heat stability of electrical insulation, the determination of heat stability of materials, and its dependence on chemical composition, as well as problems related to the thermal conductivity of insulation. He also cited the results of a number of his scientific research works and new production developments dealing with concrete forms of insulating materials with relatively high heat stability: liquid and solid organic materials, aluminum oxide insulation, asbestos materials, glass-fiber materials, vitreous enamels, mica, and its substitutes.

Official Opponents: Profs. N. V. Aleksandrov, N. P. Bogoroditskiy (Doctors of Technical Sciences); G. I. Skanavi, B. M. Gokhberg, (Doctors of Physicomathematical Sciences).

SO: Elektrichestvo, No. 7, Moscow, August 1953, pp 87-92 (W/29844, 16 Apr 54)

...ursday, September 26, 2002 CIA-RDP86-00513R001755010006-6

PA 4/49T31

TAREYEV, B. M.

Jan 48

USSR/Electricity
Insulating Materials
Insulators

"Work of the All-Union Bureau of Electric Insulation in 1946-1947," B. M. Tareyev, Cand Tech Sci, Sci Secy, All-Union Bu of Elec Insulation, 1 p

"Elektrichestvo" No 1

Briefly touches on major achievements of subject bureau for 1946-1947.

4/49T31

[redacted]

PA 4/49T29

TAREYEV, B. M.

Jan 48

USSR/Electricity

"The Oldest Czechoslovakian Electrical Journal, 'Elektrotechnicky Obzor' (Electrical Engineering Outline)," B. M. Tareyev, Cand Tech Sci, S. P. Inozemtsev, Engr, 1 p

"Elektrichestvo" No 1

Compliments subject journal for the high-level technical information which it has consistently contained.

4/49T29

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B. M.

"Lectures on the 'Electrical Materials' Course" (Lektsii po kursu "Elektromaterialovedeniye") No 3, Electrical Insulating Glasses, Editing and Publishing Division of VZEI (All-Union Correspondence Power Engineering Institute), 1949, 24 pp.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREEV, B. M.

personala, Electrical engineering materials, Izd. 3., perer. Moskva, Gos. energ. izd-vo, 1949
232 p. (50-22181)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B. M.

PA 35/49T27

USSR/Electricity — Jan 49

Insulation, Electrical

Bibliography

"All-Union Scientific-Technical Congress on Electrical Insulation," B. M. Tareyev, Dr Tech Sci, Secy, All-Union Bu of Elec Insulation, 2 pp

"Elektrichestvo" No 1

Session was held 4-8 Oct 48 in Leningrad with 389 engineers and teachers participating. Fifty-four reports on electrical insulation problems were submitted.

[redacted] 35/49T27

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B. M.

USSR/ Electricity Electric Power Publications — Apr 49

"New Books on Power Engineering" 1 p

"Elek Stants" No 4

Brief reviews include: N. K. Bodashkev's "Breakdowns in Stream Turbines and Their Prevention," G. K. Zherbe's "Testing Asynchronous Motors After Repairs," T. A. Zikeyev and A. I. Karelin's "Analysis of Power Fuels," "Installation and Operation of High-Pressure Boilers," edited by S. Ts. Fayerman and S. M. Shukher, "Handbook on Electrical Insulation," edited by Yu. V. Koritskiy and B. M. Tareyev, and F. A. Stupel's "Automatic and Protective Relays,"

PA 55/49T27

September 26, 2002 CIA-RDP86-00513R001755010006-6

TAREYEV, B. M.

PA 55/49T50

USSR/Engineering
Drying
Currents, High-Frequency

May 49

"Review of I. P. Berdinskikh's Book, 'Kiln Drying and Bonding of Ligneous Materials in a Field of High-Frequency Currents,'" B. M. Tareyev, Dr Tech Sci, Netushil, Cand Tech Sci, Docent M. A. Arkhangel'skiy, Engr, E. P. Parim, Engr, 1 p

"Elektrichestvo" No 5

Does not indorse material in this book, which consists of three main parts: generators (electronic tubes, gaseous rectifiers, etc.), drying, and bonding. Points out numerous deficiencies in

55/49T50

USSR/Engineering (Contd)

May 49

author's analysis of his subject and lists examples of glaring errors in text. Published by Gostekhizdat Ukraine, 1948, 120 pp, price 5 rubles.

55/49T50

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B. M., PROF

157T22

USSR/Electricity - Insulation, Electric Dielectrics — Jan 50

"Heat-Resisting Porous Insulation," Prof B. M. Tareyev, Dr Tech Sci, Ya. M. Parnas, Cand Tech Sci, All-Union Corr Power Eng Inst, 5 pp

"Elektrichestvo" No 1

Notes advantages of nonimpregnated inorganic fiber insulation in gaseous medium with high working temperature and sharp temperature impulses. Deduces formulas for breakdown voltage, dielectric constant, and dielectric loss angle of glass fabric as temperature varies. Gives results of experimental verification of proposed formulas, confirming feasibility

[redacted] 157T22

USSR/Electricity - Insulation, Electric (Contd) — Jan 50

of using nonimpregnated inorganic fibrous materials as heat-resistant electrical insulation. Submitted 8 Jun 49.

[redacted] 157T22

TAREYEV, B.M.

AID 757 - X

PHASE X TREASURE ISLAND BIBLIOGRAPHICAL REPORT

Call No.: AF630350

BOOK
Author: TAREYEV, B. M.
Full Title: ELECTRICAL ENGINEERING MATERIALS (Fourth Issue, Reviewed)
Transliterated Title: Elektrotekhnicheskiye materialy
PUBLISHING DATA
Originating Agency: None
Publishing House: State Power Engineering Publishing House
Date: 1952 No. pp.: 288 No. of copies: 25,000
Editorial Staff: None
PURPOSE AND EVALUATION: This book is intended for workers in power system plants and repair shops, and contains the description of properties, grades, testing methods and treatment of materials most frequently used in electrical engineering. The book's value lies in its detailed description of many chemical compounds, which by giving their basic data and characteristics as established by the "GOST" standards, permits an insight into methods used in Soviet power engineering.
TEXT DATA
Coverage: The book is divided into 12 chapters, which give

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Elektrotekhnicheskiye materialy

information on dielectric materials in the first 8 chapters and on conductors in the last four. For a more detailed account see "Table of Contents".

Annotated Table of Contents

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Elektrotekhnicheskiye materialy

Pages
66-116

Ch. 4 Congealing Insulating Materials

Resins: thermoplastic and thermo jetting; colophony (also used in oil varnish), "GOST" standard specifications; shellac (only imported); amber; phenolic resins: bakelite, iditol and "sovenit"(basic data attached)developed in the USSR, used in the radio industry ; glyptal, nitrocellulose, acetyl-cellulose, ethyl cellulose; vinyl group: polychlorvinyl, perchlorvinyl; polysterene, congealed and emulsion (developed by A. F. Ioffe according to All-Union Technical Specifications of the MKhP and used in radio engineering, basic data given); polyethylene (basic data); polyisobutylene (basic data); polymethylmetacrylate (used for "organic glass"); polyvinylformal; polytetrafluorethylene (basic data); polyamide resins (including a Soviet make: "Capron"); polysiloxen resin group, (developed by K. A. Andrianov and O. I. Gribanova).

Bitumen: artificial (oil) and mineral (asphalt),"GOST" standard data given.

Drying oil: Linseed oil, tung oil, castor oil (basic data)

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Elektrotekhnicheskiye materialy

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Wax: paraffin; ceresin ("GOST" standards); polychlornaphtalene (basic data); oleowax (developed by N. A. Petrov and S. A. Deryabin from castor oil).

Solvents: (a table listing formulae, standards and properties, pp. 88-89).

Varnish: impregnating varnish (types and specifications); enamel and adhesive varnish; oil varnish (types and specifications); cellulose varnish (types and data); aniline-formaldehyde and semi-conducting varnish.

Impregnating and filling compounds: quartz and other compounds for bushings and cables (tables, diagrams, "GOST" standards).

Drying and impregnating insulating materials: diagrams of drying equipment. Research on effects of moisture by Academician P. A. Rebinder, S.M. Lipatov; research on electric properties of various types of hygroscopic dielectrics by M. M. Mikhaylov; the book Teoriya sushki (Theory of Drying) by A. V. Lykov (1950) is mentioned.

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Elektrotekhnicheskiye materialy

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Ch. 5 Fiber Base Insulating Materials 116-136

Wood: properties and treatment, compounds with "uralite" (85% NaF and 15% dinitrophenol).

Paper and cardboard: data and "GOST" standards for paper insulations of cables and capacitors, developed by P. I. Gostev, T. P. Lazarenko, P. P. Bondarenko, M. A. Antonov, B. I. Ushakov and K. I. Dobrynin in 1951; Mica tape ("Japanese paper") developed by I. V. Bondarenko and M. D. Dmitriyev; glue paper ("GOST" standards); cardboard ("GOST" standards).

Insulating fabrics "GOST" standards for rayon, cotton and hemp; tapes, rubberized and tarred.

Non-varnish and varnish-treated insulating; basic data; "GOST" standards.

Inorganic fibrous materials: asbestos, composition, "GOST" standards, fiberglass, as developed by M. G. Chernyak, M. S. Aslanova, S. I. Ioffe "GOST" standards; table with basic data and properties on p. 135.

Ch. 6 Plastic Materials 116-168

General information, composition and photo of 150 ton hydraulic molding press. Methods of injecting, blowing, Elektrotekhnicheskiye materialy Pages

and pressing with diagrams of equipment used.
Binders: bakelite type, "GOST" standards, types and basic data.
Organic glass: plexiglass, basic data, used for high frequency expulsion tube, diagram of RTO type.
Laminated plastic materials: "Getinax", new paper-base material developed by N. I. Krestov, V. S. Kvashnin, V. V. Kudryavtsev, V. B. Rekst, and O. A. Butuzova, basic data, types and "GOST" standards; cotton-base "textolite" types, data and "GOST" standards; "glass textolite", glass-base, data; plywood.
Plastic flexible films: vinyl and polysterene (styroflex), basic data.
Rubber materials: natural and synthetic rubber developed by I. L. Kondakov, S. V. Lebedev, N. D.Zelinskiy and B. V. Byzov, types, basic data, and "GOST" standards. Thiuram vulcanized rubber; ebonite, "GOST" standards, table; asbocement, basic data; micalex, basic data.

Ch. 7 Mineral Insulating Materials 168-179
Mica: Muscovite and phlogopite, properties, by M. M. Mikhaylov, E. K. Lashev, K. A. Vodop'yanov, M.I. Mantrov).

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Micanites, shape, components and basic data, "GOST" standards.

Various mineral insulating materials: marble, "GOST" standards; slate, basic data; talcchlorite, basic data.

Ch. 8 Glass and Ceramics 179-214

Glass: components, properties, types, manufacturing, use, basic data, table on p. 188.

Porcelain: manufacturing, basic data, types, testing, "GOST" standards for pin type and suspension type insulators (diagrams presented); oil circuit-breakers: VM-35-N type; 110 kv transformer TFN type (diagrams presented)

Various ceramics: Radio- and ultra-porcelain developed by N. P. Bogoroditskiy and I. D. Fridberg, basic data listed. Aluminoxide basic data; steatite, ceramics based on TiO_2 "Rutil" (ticond T80, T60 and T150); segnetoceramics (tibar), developed by B. M. Vul; vilyte developed by V. I. Pruzhinina-Granovskaya and L. I. Ivanov used for grounding.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TARDY, V.

On the 60th birthday of Dr. Jan Dolezal. Cesk. psychiat. 58 no.2: 130-133 Ap '62.

(BIOGRAPHIES)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

PETROV, G.N.; ROZENFEL'D, V.Ye.; KAGANOV, I.L.; PETROV, I.I.; STAROSKOL'SKIY, N.A.; TARE, B.M.

Vasilii Aleksandrovich Iz"iurov. Elektrichestvo no.7:93 Jl '60. (MIRA 13:8)

(Iz"iurov, Vasilii Aleksandrovich, 1885-)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TARE, R.

In the struggle for technological progress. Sov.profsoiusy 5 no.1: 46-50 Ja '57. (MLRA 10:2)

1. Predsedatel' komiteta profsoyuza radiozavoda imeni Popova.
(Radio industry) (Trade unions)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREGZY-HORNOCH, A.

Adjustment of continental triangulation nets. In German.

p. 429 (Acta Technica) Budapest, Hungary Vol. 16, no 3/4 1957

SO: Monthly Index of East European Acessions (AEEI) Vol. 6, No. 11 November 1957

PA 4T53

TAREEVA, A. I.

USSR/Toxicology
Hexachlorcyclohexane

Feb 1947

"Approximate Data on Investigations of the Toxic Features of Technical Mixture of Hexachlorcylohexane Isomers," A. I. Tareeva, 2 pp

"Farmakol i Toksikol" Vol X, No 2

Experimental data leading to the conclusion that doses of 200 and 500 milligrams do not cause any changes in the human skin.

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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TARELKIN, Konstantin Danilovich; SINEL'NIKOVA, TS.B., red.; TSESARKIN, L.D., red.

[Fur goods] Pushno-mekhovye tovary. Moskva, Izd-vo "Ekonomika," 1964. 195 p. (MIRA 17:6)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

BOYKO, Yu.A., inzh.; DOBROKHOTOV, V.I., inzh.; KISEL'GOF, M.L., kand. tekhn.nauk; PATYCHENKO, V.S., inzh.; POGORELOV, B.F., inzh.; TARELKIN, M.F., inzh.

Burning of lignite with a high moisture content. Elek. sta. 36 no.2:8-12 F '65. (MIRA 18:4)

RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

RODZEVICH, N.V., inzh. (Kolomna); TARELKIN, Yu.V., inzh. (Kolomna)

Coating with caprone of the axle box supports of diesel locomotives.
Elek. i tepl. tiaga 6 no.11:18 N '62. (MIRA 16:1)
(Diesel locomotives)

PUTILIN, V.N., inzh.; RODZEVICH, N.V., inzh.; TAPELKIN, Yu.V., inzh.

Use of capron for the axle end thrust bearings and bushings of the spring suspension for locomotives. Trudy VNITI no.19:214-223 '64. (MIRA 18:3)

TARELOV, A.S., inzhener.

Automatic feed check valves. Elek.sta. 28 no.1:77-79 Ja '57. (MIRA 10:3)

(Boilers--Safety appliances)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TARENKO, M.I.

5891 TARENKO, M.I. Metodika i tekhnika opredeleniya kolichestva pyli v vozdukhe. (metod. pis'mo). tbilisi, gruzmedgiz, 1954. 24s, s ill. 16sm (nauch.- issled. in-t gigiyeny truda i profzabolevaniy im. n. i. makhviladze m-va zdravookhraneniya gruz. ssr), 2.000ekz. bespl. -a vy. ukazan v kontse teksta.-na gruz. yaz.-
(55-499) 614.71-074

SO: Knizhnaya Letopis', vol. 1,1955

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TARENKO, M. I.

MACHABELI, M.Ye., kand.med.nauk; TARENKO, M.I., nauchnyy sotrudnik;
GEMBASHIDZE, G.M., klinicheskiy ordinator

Sanitary and hygienic conditions of workers employed in spraying citrus trees with octamethyl and mercaptophos. Gig. i san. 22 no.7: 84-85 Jl '57. (MIRA 10:10)

1. Iz Instituta gigiyeny truda i professional'nykh zabolevaniy Ministerstva zdravookhraneniya Gruzinskoy SSR.

(INSECTICIDES, injurious effects,
phosphates, in spraying citrus trees (Rus))
(PHOSPHATES, injurious effects,
insecticides, in spraying citrus trees (Rus))

GOGUADZE, V., doktor khim.nauk, zasluzhennyy izobretatel' Gruzinskoy SSR;
TARENKO, M., nauchnyy sotrudnik

Lighting without burning. Izobr. i rats. no.10:12-13 '63.
(MIRA 17:2)

1. Institut prikladnoy khimii i elektrokhimii AN Gruzinskoy SSR (for Tarenko).

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

SHVANGIRADZE, M.D.; TSKHADADZE, K.A.; TARENKO, M.I.; GOGUADZE, V.P.

Increase of the sensitiveness of nitrogen detection by the Lassaigne method. Zhur. anal. khim. 18 no.11:1399-1400 N '63. (MIRA 17:1)

1. Institut prikladnoy khimii i elektrokhimii AN GruzSSR, Tbilisi.

GOGUADZE, V.P.; TARENKO, M.I.

Color reaction for thiocyanate alkyls and the synthesis of new fluorescent dyes. Soob. AN Gruz. SSR 36 no.1:69-76 O '64. (MIRA 18:3)

1. Institut prikladnoy khimii i elektrokhimii AN Gruzinskoy SSR. Submitted March 6, 1964.

L 25799-66 EWA(h)/EWT(1) UR/

ACC NR: AM6008542 Monograph 28 B+1

Tarenenko, Zoya Il'inichna (Candidate of Technical Sciences); Trokhimenko, YAroslav Karpovich (Candidate of Technical Sciences)

Delay systems[25] (Zamedlyayushchiye sistemy) Kiev, Izd-vo "Tekhnika", 1965. 306 p. illus., biblio. 6000 copies printed.

TOPIC TAGS: delay circuit, traveling wave, cavity resonator

PURPOSE AND COVERAGE: This book is intended for the technical personnel of industrial enterprises and design offices, and may also be used by aspirants and students in advanced courses of radio engineering and radio electronic divisions of schools of higher education. It describes the properties of delay systems in shf cathode-ray tubes, using the extensive interaction of the electron beam with the traveling-wave field. General problems pertaining to traveling-wave propagation in delay systems are described. The electrodynamic characteristics of helical, pin, comb, and lumped-parameter delay systems and of cavity resonator circuits, as well as those of some special types of delay systems, are discussed. Methods for theorical and experimental investigation of delay systems and measurement of their basic parameters are presented.

UDC 621.385.6:621.372.81

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L 25799-66

ACC NR. AM6008542

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ACC NR: AM6008542

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ACC NR: AM6008542

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SUB CODE: 09/ SUBM DATE: 12Oct65/ ORIG REF: 165/ OTH REF: 122

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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TARENKOV, Ye.

International tourism and the services of passenger vessels. Mor. flot 25 no.8:40-41 Ag '65. (MIRA 18:8)

1. Kapitan teplokhoda "Feliks Dzerzhinskiy".

L 07205-67 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l) GD

ACC NR: AT6022699 SOURCE CODE: UR/0000/66/000/000/0334/0343

AUTHOR: Taresenko, V. P.

ORG: none

TITLE: Automatic optimization of several plants

SOURCE: Moscow. Institut avtomatiki i telemekhaniki. Samoobuchayushchiyesya avtomaticheskiye sistemy (Self-instructing automatic systems). Moscow, Izd-vo Nauka, 1966, 334-343

31
20
8+1

TOPIC TAGS: optimal automatic control, queueing theory, approximate solution

ABSTRACT: The aim of this paper is to determine probability distribution of states of a system of n plants and m optimizers (m < n), the average length of a queue in a servicing system under settled operating conditions, and the optimum number of optimizers. The case considered is one where the probability that an optimizer will find an extremum in no more than k steps is

$$p(k) = \sum_{0=1}^{k} (1-p)^0 p = 1-(1-p)^k \simeq 1-e^{-pk}. \quad (1)$$

and distribution density of arriving calls $\mu(t)$ coming from each plant for servicing is

$$\mu(t) = \lambda e^{-\lambda t}, \quad (t > 0). \quad (2)$$

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SUB CODE: 12,

Card 2/2 11b

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

depending on the composit... with an average ...
pression of 20, 40 and 60% (with similar initial ... and variable final depth at 600–1100C
(every 100C). The tests showed that at rolling temperatures above 900C the specific

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ACCESSION NR: AT4048082

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

ASSOCIATION: Laboratoriya plasticheskoy deformatsii instituta metallurgii

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREL, E. Ya.

BORUSHKO, I.M., inzh.; BOKHOVCHUK, M.M., inzh.; FIDEL'MAN, G.S., inzh.; POZIN, M.Ye., doktor tekhn. nauk; TARAT, E.Ya., kand. tekhn. nauk.

Foam dust collectors used at the concentration plant of the "Apatite" Combine. Bezop. truda v prom. 2 no.2:9-11 F '58. (MIRA 11:2)

1. Kombinat "Apatit" (for Borushko, Bokhovchuk, Fidel'man). 2. Leningradskiy tekhnologicheskiy institut im. Lensoveta (for Pozin, Tarat).

(Dust collectors)

TAREYEV, E. M., Prof.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

USSR/Medicine - Infectious Hepatitis Dec 53

"The Clinical Aspects, Prophylaxis, and Treatment of Botkin's Disease in Hot Climates," Prof E. M. Tareyev, Active Mem Acad of Med Sci USSR, Moscow

Klin Med, Vol 31, No 12, pp 3-11

Enumerates some of the achievements attained by USSR science in research on infectious hepatitis. States that manifestations of this disease, in a hot climate, may involve special types of liver morbidity. Discusses transmission of the disease by inoculation. Advocates a wider use of anti-epidemic measures, and the use of specific

274T26

prophylaxis for this disease. Names as outstanding problems, the detn of the origin of Botkin's disease and development of specific methods for its treatment.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

VENGERSKAYA, Kh. Ya.; LYUBETSKIY, Kh. Z.; TAREVA, G.A.

Working conditions in testing new phosphate insecticides. Gig. i san. 24 no.5:12-17 My '59. (MIRA 12:7)

1. Iz Uzbekskogo nauchno-issledovatel'skogo sanitarnogo instituta.
(PHOSPHATES, pois.
insecticides, pre. in indust. (Rus))

TAREYEV, YE

Vnutrennie Bolezni (Internal Diseases)

950 p. 6.00

SO: Four Continent Book List, April 1954

TAREYEV, A.V.

PAVLOV, A.N., otv. za vypusk; VOLODICHEVA, V.N.; IVANOVA, A.I.; KULAKOV, I.N.; LYAMINA, T.N.; MIT'KINA, L.I.; POZDNYAKOVA, N.P.; RODIONOVA, L.I.; ROMANOVA, N.M.; SOFIYEV, E.S.; CHICHKINA, A.A.; TRESORUKOVA, Z.G.; BOGATYREV, P.P.; BROVKINA, A.I.; IVANOVA, L.D.; IVASHKIN, G.A.; KAMNEV, N.I.; LYSANOVA, L.A.; OZHEREL'YEVA, Z.I.; PAVLOVA, T.I.; TYUTYUNOVA, N.I.; UMNITSYNA, A.P.; ZHIVILIN, N.N.; ALESHICHEV, M.P.; VINOGRADOV, V.I.; YEREMIN, F.S.; KRAVCHENKO, Ye.P.; LOVACHEVA, M.V.; NIKOL'SKAYA, V.S.; MAKHOV, G.I.; SKEGINA, A.V.; TAREYEV, A.V.; KHOLINA, A.V.; BRYANSKIY, A.M.; BURMISTROVA, V.D.; GRIGOR'YEVA, A.M.; LUTSENKO, A.I.; OREKHOVA, Z.V.; TEPLINSKAYA, N.V.; FEOKTISTOVA, V.I.; BUTORIN, I.M.; BOCHKAREVA, L.D.; BURENINA, V.A.; VETUSHKO, A.M.; VIKHLYAYEV, A.A.; SOROKIN, B.S.; TSYBENKO, L.T.; KHLEBNIKOV, V.N.; DUMNOV, D.I.; STEPANOVA, V.A.; MANYAKIN, V.I., red.; VAKHATOV, A.M.; MAKAROVA, O.K., red.izd-va; PYATAKOVA, N.D., tekhn.red.

[Soviet agriculture; a statistical manual] Sel'skoe khoziaistvo SSSR; statisticheskii sbornik. Moskva, 1960. 665 p. (MIRA 13:5)

1. Russia (1923- U.S.S.R.) TSentral'noye statisticheskoye upravleniye. 2. Upravleniye statistiki sel'skogo khozyaystva TSentral'nogo statisticheskogo upravleniya SSSR (for all except Makarova, Pyatakova).

(Agriculture--Statistics)

TAREYEV, B.A.

Some applications of the absolute current method to the study of level variations of a shallow sea. Izv.AN SSSR Ser.geofiz. no.7: 813-820 Jl '56. (MIRA 9:9)

1.Akademiya nauk SSSR, Institut okeanologii.
(Ocean currents)

TAREYEV, B. A. Cand Phys-Math Sci -- (diss) "Certain Problems of the Theory of Wind-Caused Fluctuations of the Level of Shallow-Water Sea." Mos, 1957. 8 pp 20 cm. (Marine Hydrophysical Inst, Academy of Sciences USSR), 110 copies (KL, 27-57, 104)

49-58-5-4/15

AUTHOR: Tareyev, B. A.

TITLE: Drift Currents in a Shallow Sea under the Influence of a Wind Varying with Time (Dreyfovyye techeniya v melkovodnom more pod deystviyem peremennogo vo vremeni vetra)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1958, Nr 5, pp 605-612 (USSR)

ABSTRACT: The importance of this problem arises in the following way. In wide, but shallow reservoirs, e.g. Northern Caspian or Azov Seas, a period of time of the order of the natural oscillations in the basin is required, if a horizontal pressure gradient and current gradient is to be built up. In the case of an irregular, rapidly changing wind of the type often found in practice, the surface inclination will be small and, hence, the gradient component of the resulting current will also be small compared with the drift component. This is even more the case for local winds, e.g. in the region of the Mangyshlak peninsula. Thus, in many instances, the current which arises can be considered as purely due to drift. This is useful in practical cases, e.g. navigation, where, otherwise, a calculation must be based on the average wind field, which may change. The development of drift currents in an infinitely deep homogeneous sea in the presence of Coriolis

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Drift Currents in a Shallow Sea under the Influence of a Wind Varying with Time.

forces and under the influence of a constant wind which arises suddenly was first solved by Fredgol'm (Ref.1). P.A. Kitkin generalized this solution for a sea of finite depth. A further generalization to a non-stationary wind field would lead to difficulties and, as V. B. Shtokman and V. A. Tsikunov (Ref.3) have shown, would not be of great interest. In deep seas, the current is distinguished by its relative stability and, hence, reacts less to a rapid change in wind field than the current in a shallow sea. In a shallow sea, Coriolis forces can be neglected in comparison with other forces; The author considers an infinite sea of depth h over which, from the time $t = 0$, a spatially homogeneous wind blows. The wind can change arbitrarily in magnitude and direction. Co-ordinates are taken with x and y in the sea's surface and z vertically downwards. Since the continuity condition holds, only one horizontal direction (x) is considered. Eq.(1) gives the equation of motion and Eq.(2) the boundary conditions.

$$\frac{\partial u}{\partial t} = \frac{\partial}{\partial z}\left[\nu(z) \frac{\partial u}{\partial z}\right] \qquad (1)$$

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Drift Currents in a Shallow Sea under the Influence of a Wind Varying with Time.

$$\frac{\partial u}{\partial z} = \frac{T(t)}{\rho \nu} \quad \text{at } z = 0; \; u = 0 \text{ at } z = h; \; u = (z,0) = U_0(z) \qquad (2)$$

u is the velocity component along the x-axis, $\nu(z)$ is the kinematic coefficient of turbulent viscosity which, generally speaking, depends on z ; ρ is the constant density; $T(t)$ is the tangential stress of the wind along the axis (a given function of time which depends only on certain, very general, conditions). Consider first the simplest case with periodic boundary conditions which gives a closed solution. ν is taken to be constant and Eqs.(1) and (2) written in the form Eqs.(3) and (4), where $\tilde{u}(z,t)$ is a complex function, the real part of which equals $u(z,t)$. Substituting $\tilde{u}(z,t) = e^{-i\omega t}Z(z)$, a differential equation is obtained which is integrated in accordance with the boundary conditions to give:

$$\tilde{u}(z,t) = e^{-i\omega t}\frac{T_0}{\gamma\mu}\frac{\sin \gamma(h-z)}{\cos \gamma h} .$$

Separating the real and imaginary parts of this expression, Eq.(6) is obtained. In the case of an arbitrarily time-varying tangential stress, an elementary solution can be

Drift Currents in a Shallow Sea under the Influence of a Wind Varying with Time.

obtained from Eq.(3). F'el'stad (Ref.4) and Khidaka (Ref.5) have shown that the result is Eq.(8), which changes into Eq.(9) for T = const. A numerical example for a periodically varying wind is given. The period of tangential stress change $\tau = 2\pi \times 10^4$ sec$\sim$17.5 hours, coefficient of turbulent kinematic viscosity, $\nu = 50\ cm^2/sec$. Taking the unit of length to be 1 m and unit of time 10^4 sec; $\nu = 50$, $\omega = 1$, and $\alpha = \sqrt{\frac{\omega}{2\nu}} = 0.1\ m^{-1}$. Fig.1 shows the results obtained for the velocity distribution with depth at different times. As can be seen from Fig.1, in the layer from $z = 0.46\ h$ to the bottom a counter-current is observed periodically. Observation of suitable velocity distributions in natural conditions might lead to incorrect conclusions concerning the gradient of these counter-currents, if the non-stationary wind field is not considered. Eqs.(6) and (7) permit the calculation of the stress at the bottom. Fig.2 shows the variation with time of the tangential wind stress at the surface and the

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Drift Currents in a Shallow Sea under the Influence of a Wind Varying with Time.

tangential stress at the bottom, whilst Eq.(11) gives the result based on the figures introduced above. Fig.2 and Eq.(11) indicate that the greatest possible value of the ratio $T_{bottom}/T_{surface} = 0.77$. However, Francis' (Ref.6) experiments show that this ratio does not exceed 0.03 in practice. It is obviously necessary to take into account the variation of ν with depth. This is done by employing Eq.(12) which gives a linear variation with depth to a small distance from the bottom, characterized by the empirical parameter ε. It can be considered that ε is proportional to the thickness of the laminar layer - F'el'stad thinks that $\varepsilon/h \sim 10^{-2} - 10^{-3}$ (Ref.7). Choice of this parameter becomes more objective if it is assumed that the coefficient of turbulent velocity near the bottom is equal to the coefficient of normal molecular viscosity. In Eq.(12) ν_0 is the coefficient of turbulent viscosity at the surface. Hidaka (Ref.8) considered the case of ν varying with depth (with $\varepsilon = 0$). The author now considers the case with non-vanishing viscosity at the bottom. Eq.(1) is rewritten in the form Eq.(13) and the boundary conditions, Eq.(2) are

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used with $u_o(z) \equiv 0$. A solution of the form Eq.(14) is looked for with the boundary and initial conditions Eq.(15) and (16). This gives Eq.(17) into which the substitution $\bar{u} = G(t)R(z)$ is made. Changing the independent variable z a differential equation for R is obtained, with the boundary conditions (Eq.20). The integral of this can be written in the form Eq.(21), where J_o , N_o correspond to the Bessel and Neumann functions of zero order and γ_n is the root of the transcendental equation (Eq.22). A general solution of Eq.(17) by series is now sought, with change to a new variable y . Employing formula (19) and the expression for the Wronshian cylindrical function of zero order, the coefficients C_n' and C_n'' in Eqs.(24) and (25) are defined. The boundary conditions (Eq.20) and an integral formula for Z_o (any solution of Bessel's equation of zero order) are now used to determine $\|R_n\|^2$. Eq.(27) is now obtained from Eqs.(23), (17), (18), (24) and (25), and is integrated.

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The final solution is found in the form of Eq.(29): all the calculations can be carried out with the variable y, and the change to z left until the final stage. If ν_0 is put equal to zero, as was done by Hidaka, the solution is made much simpler since the Neumann function disappears. The solution can also be used for a viscosity coefficient varying with time as in Eq.(30) - this gives Eq.(31). If we assume the coefficient to be constant with time this implies that turbulence is fully developed throughout all the region. However, in a shallow sea, a non-stationary wind produces a turbulent viscosity varying with time. Unfortunately, the time dependence cannot be determined owing to the absence of data. In the case of a suddenly arising wind which thereafter remains constant, it is natural to use: $f(t) = (1 - e^{-\omega t})$ in Eq.(30), where $\omega (>0)$ is a parameter, characterizing, to a first approximation, the development of turbulence in a sea under the influence of a wind. Using this $f(t)$, the exponential factor m (Eq.9), characterizing the change of current velocity with time has the form:

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$$\exp\left\{-\nu\left(\frac{2n+1}{2h}\pi\right)^2\left[t-\frac{1}{\omega}\left(1-e^{-\omega t}\right)\right]\right\}$$

for sufficiently large t, this approximates to:

$$\exp-\left[\nu\left(\frac{2n+1}{2h}\pi\right)^2\left(t-\frac{1}{\omega}\right)\right]$$

In other words, with a ν increasing exponentially from zero to a fixed value, a certain fixed velocity will be observed at the moment $t_1 + \frac{1}{\omega}$, whereas with ν = constant this value will be observed at t_1. In view of the function used, the velocity at the start will increase very rapidly with time, which seems to be confirmed by

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observations in the North Caspian. A more detailed estimate cannot be made without more information on the function f(t) There are 2 figures and 8 references, of which 3 are Soviet, 3 German and 2 English.

ASSOCIATION: Akademiya nauk SSSR, Institut okeanologii (Academy of Sciences, USSR, Institute of Oceanography)

SUBMITTED: February 21, 1957.

1. Ocean currents--Meteorological factors

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SOV/49-58-9-12/14

AUTHOR: Tareyev, B.A.

TITLE: Stationary Circulation due to Wind in a Square Basin of Small Depth (Statsionarnyy vetrovoy nagon i tsirkulyatsiya v pryamougol'nom basseyne maloy glubiny)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1958, Nr 9, pp 1139 - 1144 (USSR)

ABSTRACT: It is shown in Ref 1 that if horizontal viscosity and non-linear terms are ignored, the question of stationary wind circulation in a shallow sea depends on the solution of the equation:

$$\frac{\partial}{\partial x}\left(\frac{1}{h^3}\frac{\partial \phi}{\partial x}\right) + \frac{\partial}{\partial y}\left(\frac{1}{h^3}\frac{\partial \phi}{\partial y}\right) = \frac{1}{2\mu}\,\mathrm{curl}_z\,\frac{T}{h} \qquad (1)$$

where $h(x, y)$ is the depth of the sea, $T(x, y)$ is the tangential stress of the wind on the surface, μ is the coefficient of vertical turbulent viscosity and ϕ is defined by the Eqs.(2). Eq.(1) has the boundary condition (3) on the contour Γ of the sea, i.e. the component of

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the total current normal to the shore line equals zero. Having solved Eq.(1) with this boundary condition, the inclination and velocity components can be found from Eqs.(4) and (5).

Obviously, Eq.(1) has no significance for $h \to 0$; in particular, the inclination of the level increases without bound. This singularity is due to the fact that near $h \to 0$, the perturbation of the level ζ, cannot be considered small compared with h. In numerical integration, this can, of course, be avoided by assuming the coastline to be a vertical step.

The present article considers a constant depth basin. For small depths, the Coriolis forces can be ignored and, hence, Eq.(1) reduces to:

$$\Delta\psi = \frac{h^2}{2\mu} \operatorname{curl}_z \underline{T} \qquad (6)$$

One method of solving the equation has been given by Leibenson (Ref 2), who assumed that the coefficients of the vertical and horizontal turbulent exchange were of the

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same order.
The author assumes the $\psi = X(x) \cdot Y(y)$ and separates the variables. For a basin of width l and length $2L$, the boundary conditions become

$$\psi = 0 \text{ when } x = 0, l \text{ and } y = \pm L .$$

It is assumed first that the wind blows along the y-axis and changes only along the x-axis. Then:

$$T_x = 0; \quad \text{curl}_z \underline{T} = \frac{dT_y(x)}{dx} .$$

Assuming X proportional to $\sin \lambda_n x$, gives Eq.(9). Y_n is then found from Eqs.(9) and (10) and, hence, the general solution of (6), satisfying the conditions (8), has the form (12). If the length of the basin along the z-axis is very great (i.e. a canal), Eq.(12) simplifies to give (15) for the inclination of the level. Thus, the free surface has the form of a plane (an analogous result was

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obtained by A.I. Felzenbaum (Ref 1)). The author next considers the general case ($L \neq \infty$). The centre of co-ordinates is now moved to the centre of the basin (Figure 1) so that the boundary conditions become Eq.(16). It can be seen from Eq.(7) that the solution will depend on cos $a_n x$ (where:

$$a_n = \frac{\pi}{2} \cdot \frac{2n + 1}{\ell} \quad \text{for } n = 0,1,2...$$

$\text{curl}_z \underline{T}$ is denoted by $f(x, y)$ and an equation, analogous to (9), is obtained for $Y_n(y)$. Integration of this gives Eq.(18) for ψ. It is next assumed that the circulation can be expressed in the form:

$$T_x = a_1 y + b_1 \; ; \quad T_y = a_2 x + b_2 \tag{19}$$

so that:

$$\frac{\kappa^2}{2\mu} \text{curl}_z \underline{T} = \text{const.}$$

This gives Eq.(20) for ψ, which can be rewritten in the form (20a). It can be seen from Eqs. (6) and (16) that horizontal circulation is absent, not only for a constant wind but also when the field of the tangential wind stress is variable but is a scalar potential.

The author next considers the case when $T_x = 0$, $T_y = ax + b$ (wind along the y-axis, the change in tangential stress characterised by a). This can be reduced, using Eqs.(20a) and (4), to an approximate expression for $\partial \zeta/\partial x$, the inclination in a direction transverse to the wind. This can be simplified further near $y = \pm L$ if $L \gg 2l$, since :

$$\frac{\mathrm{ch}\left[\frac{2n+1}{2l}\pi(\pm L)\right]}{\mathrm{ch}\left[\left(\frac{2n+1}{2l}\right)\pi L\right]} \approx \pm 1 .$$

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It follows from the expressions for $\partial\psi/\partial x$ and $\partial\psi/\partial y$ that, for $y = 0$, $S_x = 0$ and, for $x = 0$, $S_y = 0$. The difference is that, in the first case, both the total current and the x component $= 0$. Figure 1 shcws diagramatically the general character of the circulation corresponding to Eq.(20) for $a_2 = a$, $a_1 = 0$. It can be seen that for $a > 0$, a cyclonic circulation is obtained and with $a < 0$ an anticyclonic. Circulation in an actual basin is, of course, more complicated than that described owing to the neglect of horizontal turbulent viscosity in the above calculations. However, the inclusion of this factor in the equations would lead to excessive difficulty in solution.

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There are 1 figure and 2 Soviet references.

ASSOCIATION: Akademiya nauk SSSR, Institut okeanologii (Ac.Sc. USSR, Institute of Oceanology)

SUBMITTED: October 3, 1957

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TAREYEV, B.A.

FEDEROV, K.N.; BOGOROV, V.G.; and TAREYEV, B.A.

"The depths of the ocean and the problem of waste disposal therein."

report presented at the Scientific Conference on the Disposal of Radioactive Wastes, Monaco, November 1959.

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TAREYEV, B. A., FEDOROV, K. M. and BOGOROV, V. G.

"The Depths of the Ocean and the Problem of Waste Disposal Therein."

report presented at the Scientific Conference on the Disposal of Radioactive Wastes, Monaco, 16-21 November 1959.

SOV/20-127-5-19/58

3(9)

AUTHOR: Tareyev, B. A.

TITLE: On Free Convection in Deep-water Cavities of the Oceans

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 5, pp 1005-1008 (USSR)

ABSTRACT: In cooperation with the problem of the sinking of radioactive waste products of the atomic industry into the oceans, the author investigates the possibility of water circulation in great depths. It follows from observations that a noticeable superadiabatic temperature increase occurs with increasing depth. This phenomenon is explained by geothermal heat supplies. Therefore, the entire depth must be divided into two layers which are separated by that surface, on which the gradient of the potential temperature passes through zero. The lower layer, in which the potential temperature increases with depth, is described as convective layer by the author. Rayleigh (Ref 2) already pointed out that at a certain value of the dimensionless parameter (Rayleigh number R) convection currents may occur in a horizontal layer of water, which is heated from below. As in the present case the rotation of the earth must be taken into account, the system of equations is written down for the

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On Free Convection in Deep-water Cavities of the Oceans

Coriolis forces, and the boundary conditions for the surface separating the convective layer and the water masses on the opposite side, as well as the thresholds of instability are deduced. The values found show that already at very small negative superadiabatic temperature gradients (0.01° to 100 m), the Rayleigh numbers are above the critical value, and that convection must occur in spite of the stabilizing effect of the rotation of the earth. There are 1 figure and 4 references, 1 of which is Soviet.

ASSOCIATION: Institut okeanologii Akademii nauk SSSR (Institute of Oceanography of the Academy of Sciences, USSR)

PRESENTED: April 30, 1959 by V. V. Shuleykin, Academician

SUBMITTED: April 30, 1959

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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

S/010/60/000/004/002/006/XX
A053/A026

AUTHORS: Bogorov, V.G.; Tareyev, B.A.

TITLE: Oceanic Depths and the Problem of Dumping Radioactive Waste

PERIODICAL: Izvestiya Akademii nauk SSSR, seriya geograficheskaya, 1960, No. 4, pp. 3 - 10

TEXT: The authors refer to the recommendation given by V.G. Bogorov and Ye.M. Kreps at the II International Conference on the Peaceful Utilization of Atomic Energy in Geneva in September 1958, to the effect that the dumping of radioactive waste in depths of the ocean should not be permitted. In this article the authors furnish new proof in favor of their viewpoint based on the latest observations made by Soviet and foreign oceanologists, in particular on the occasion of the Danish expedition on the SS Galatea in 1952 and the Soviet expedition on the SS Vityaz' in 1958. The article compares the 23 deepest depressions in the Pacific, the Atlantic and the Indian Ocean, in indicating maximum depths and their location. It also gives information on the prevailing temperatures at various depths ranging from 0 to 10,000 m in different areas and at different seasons. These temperatures even at maximum depths are subject to variations

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Oceanic Depths and the Problem of Dumping Radioactive Waste

which permits to conclude that nowhere the water is stagnant but constantly on the move, however slow this movement may be in certain places. The vertical movement of the water in the depths of the Philippine and the Bougainville depressions have been calculated as being 10^{-4} cm^2/sec or about 30 - 50 m per annum. The speed of horizontal movement of ocean water as a rule exceeds by far that of vertical movement, particularly in the upper layers. The article refers to investigations carried out in recent years pertaining to depth circulations, mentioning the findings of Doctor Swallow and of Doctor Laughton. The article cites a number of other phenomena, which all tend to prove the movement of water, resulting in a continuous agitation and mixing process, which creates favorable conditions to the development of life, even down to the greatest oceanic depths. During deep-sea trawling of the Vityaz' in 1958 in the Pacific, going down to a depth of 10,700 m, the existence of fauna was revealed even in these ultraabyssal depths, consisting of sponges, worms, mollusca, etc, though in small quantities, because at a distance of 10 km from the photosynthetizing layers only very little food is brought down. Life in the mass of water is in a state of constant migration. Even plankton covers considerable distances. The migration of ani-

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mals and biocirculation are a powerful means of transportation of all kinds of substance including absorbed radioactivity. Harley found that in a district west of the Bikini Atoll radioactivity of plankton was 470 times greater than elsewhere in the ocean. Japanese authors state that as a result of radioactive fallout infected fishes were found near the Marshall Islands, later on near the Caroline Islands and further north near Taiwan and the Bonin Isles. Fishes caught within a radius of 3,000 km of the district of Bikini had to be destroyed on account of their radioactivity. This district being the spawning place of tuna and swordfish, it is likely that its contamination by radioactive fall-out will be of far-reaching consequences in the way of infected tunafish, in which connection the authors refer to the findings of the Japanese scientists Y. Miyake and Y. Suguira. Interesting in this respect is also the theory developed by R.H. Ketchum and T.V. Bowen concerning the physical and biological transfer of different substances, concluding that biological transfer often exceeds the role of the physical mixing process. In respect to biocirculation a great deal of research work remains yet to be done, especially in deep-water circulation, although it is known that big plankton migrates in deep layers (down to 6 km). Thus radioactive waste buried in the depth of the ocean, when dissolved will rise

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by means of physical as well as biological circulation and eventually endanger the life of human beings. The theory that the radioactive substances after a while will be dispersed and in a dissolved state mix with the entire mass of water is ill founded. Water currents are localized and the same refers to biocirculation following a certain cycle. The authors agree with H.T. Dunster that the disposal of radioactive wastes in coastal waters is highly dangerous, and so is the dumping of such wastes in the depths of the ocean. Further investigation and research work should clarify in particular: "The behaviour of radioactive substances in the ocean." - "The accumulation of radioactive substances in marine organisms and their tissues." - "The age of different layers of water and the duration of a certain mass of water remaining in a given layer, types and speeds of mixing processes." - "Speeds of vertical and horizontal circulations of different layers." - "Biocirculation, daily, seasonal, multiannual." - "Geo-chemical factors influencing distribution of radioactive substances". There are 16 references: 9 Soviet, 6 English and 1 Japanese.

ASSOCIATION: Institut okeanologii AN SSSR (Institute of Oceanology, Academy of Sciences, USSR)

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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B.A.

Theory of convection circulation in oceanic trenches. Izv. AN SSSR.Ser.geofiz. no.7:1022-1029 Jl '60. (MIRA 13:7)

1. Akademiya nauk SSSR, Institut okeanologii.
(Ocean currents) (Ocean bottom)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

IVANOV, Yu.A.; TAREYEV, B.A.

Calculating the vertical velocity component of drift currents. Trudy MGI 22:3-4. '60. (MIRA 14:3)

(Ocean currents)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B. A., and FOMICHEV, A. V.,

"Geostrophic currents in the Antarctic sector of the Pacfic."

To be submitted for the 10th Pacfic Science Congress, Honolulu, 21 Aug. - 6 Sep 1961.

Institute of Oceanology.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

NAUMOV, A.G.; ZERNOVA, V.V.; IVANOV, Yu.A.; TAREYEV, B.A.

Frontal zones and biogeographic division of the surface waters (0 - 500m.) of the southern part of the Pacific Ocean based on plankton. Trudy Inst.okean. 58:54-66 '62. (MIRA 15:12)

(Pacific Ocean—Plankton)

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TAREYEV, B.A.

Estimation of the nature of heat convection and turbulent heat conduction as applied to the Antarctic circumpolar waters. Okeanologiia 2 no.1:31-43 '62. (MIRA 15:2)

1. Institut okeanologii AN SSSR.
(Antarctic regions--Ocean temperature)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B.A.

Internal waves in an ocean inhomogeneous with respect to density.
Dokl. AN SSSR 149 no.4:827-830 Ap '63. (MIRA 16:3)

1. Institut okeanologii AN SSSR. Predstavleno akademikom V. V. Shuleykinym.

(Seawater—Density) (Waves)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B.A.

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Internal baroclinicn waves in flowing around the irregularities of the bottom and their effect on processes of sediment formation. Okeanologiia 4 no.5:915 '64 (MIRA 18:1)

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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B.A.

Possibility of the formation of natural vertical convection in some regions of the Indian Ocean. Trudy Inst. okean. 64:5[illegible]-[illegible]2 '64. (MIRA 17:7)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B.A.

Internal baroclinic waves observable during the flow around the unevennesses of the floor and their influence on the deposit-forming processes in the ocean. Okeanologiia 5 no.1: 45-51 '65. (MIRA 18:4)

1. Institut okeanologii AN SSSR.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B.A.

Quasi-geostrophic instability of ocean currents. Dokl. AN SSSR 162 no.1:74-77 My '65. (MIRA 18:5)

1. Institut okeanologii AN SSSR. Submitted September 17, 1964.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

ACC NR: AR7004103 (N) SOURCE CODE: UR/0169/66/000/012/V021/V021

AUTHOR: Tareyev, B. A.

TITLE: Some consequences of the dyanmic instability of ocean currents

SOURCE: Ref. zh. Geofizika, Abs. 12V127

REF SOURCE: Sb. 2-y Mezhdunar. okeanogr. kongress, 1966. Tezisy dokl. M., Nauka, 1966, 368

TOPIC TAGS: ocean current, approximation method, perturbation, ocean current instability

ABSTRACT: The problem of the stability of geostrophic baroclinic zonal ocean currents is studied with methods of approximation. The solution takes into account the vertical shift of main current velocity, vertical motions, stratification, β-effect, inertial forces, and the horizontal eddy viscosity. Internal waves were filtered by introduction of a quasi-geostrophic approximation of the perturbation field. It is shown that for the real values of oceanographic parameters, the intense circulation systems such as the Gulf Stream, Kuroshio, and trade wind currents are dynamically

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unstable, and, consequently, cannot be steady. Periods of unstable, large-scale quasi-geostrophic perturbances occurring on the background of the main current have a duration of several days to several weeks. These periods are determined by the natural dynamic structure of the current and do not depend on the action of external factors (changes in tangential stress of the wind, influx of heat from the atmosphere etc). The wavelength of the more unstable large-scale oceanic perturbations is of the order of several hundred kilometers. The natural scale of horizontal turbulences must be accordingly of the same order. In connection with the phenomena of instability, the possibility of forecasting time variations of ocean currents is naturally reduced. However, some statistical characteristics of spectral function type can be calculated on the basis of the mean values of characteristic quantities (shift of velocity, stratification etc). The absence of long series prevents a comparison of calculations with observations. However, coordinated surveys in the Gulf Stream region show that the calculations yield a correct order of values. Some evaluations show that unsteady increasing (and fading) perturbations play a substantial role in the energy balance of the mean oceanic circulation. [Translation of abstract]

[DW]

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The Oxidation of Light Metals. B. M. Tarrev (*Legkie Metalli* (*Light Metals*), 1932, (12), 42-48).—[In Russian.] A description of methods of oxidizing aluminium, as employed in the U.S.S.R. and abroad, for increasing its anti-corrosion properties and especially for insulation purposes.—D. N. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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21

The Use of Light Metals in the Electrical Industry. B. M. Tareev (*Legkie Metalli* (*Light Metals*), **1932**, (1), 17-22).—[In Russian.] An examination of the feasibility of using light metals and alloys as electrical conductors.

D. N. S.

A S M - S L A METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

21

Pistons of Light Alloys. B. M. Tareev (*Legkie Metalli* (*Light Metals*), 1932, (5), 29–30). [In Russian.] Advantages and drawbacks of pistons for internal combustion engines made from light alloys are enumerated and a list of such alloys is given. – D. N. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RD[redacted]6-

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

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11

Substitution and Economy of Non-Ferrous Metals in the Electrical Industry. B. M. Tarvy and A. U. Shpurt (*Vestnik Elektropromishlennosti* (*Messenger Elect. Ind.*), **1936**, (7), 15–18). —N. A.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6

Electrochemical phenomena in dielectrics. II. Diverting of particles by a transverse field. B. M. Tareev. *Colloid J.* (U. S. S. R.) 3, 581-2(1937).—It is shown on theoretical grounds that colloidal particles undergoing electrophoresis or moving under some external force can be diverted from their path by means of a transverse magnetic or elec. field. S. L. Madorsky

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PROCESSES AND PROPERTIES INDEX

Ca

2

Electrokinetic phenomena in dielectrics. III. Conductivity of colloidal systems of various concentrations, colloidal particle sizes and temperatures. B. M. Tareev and V. A. Baev. *Colloid J.* (U. S. S. R.) 3, 771-5(1937); cf. *C. A.* 32, 6120[1].—Math. Equations are given showing electrocond. of colloidal systems as a function of concn. and particle size of the dispersed phase and of temp. Electrocond. increases with increase of concn. and particle size. With rise of temp. electrocond., at first increases, then passes through a max. and finally decreases. The electrocond. of a colloidal system may be greater than that for each phase separately.

S. L. Madorsky

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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CA

13

Castor oil as a dielectric. B. M. Tareev and G. I. Raishunskaya. *Vestnik Elektroprom.* 1939, No. 10-11, 37-41.—The chem., elec. and phys. properties of castor oil are reviewed. The dielec. resistance of castor oil is of the same order as transformer oil or Sovol. The resistance is lowered by addn. of water but is not affected by addns. of transformer oil and Sovol in amts. up to 50%. The sp. vol. resistance of castor oil and mixts. thereof with 1-5% of transformer oil or Sovol is of the order of 5×10^{13} - 8×10^{13} ohm-cm. Mixts. of castor oil with 1-5% water are conducting. B. Z. Kamich

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

Thermal conductivity of colloidal systems. B. M. Tareev. *Colloid J.* (U. S. S. R.) 6, 545–50(1940).—The approx. value of the heat cond. (κ) of a system of spheres in a homogeneous medium can be calcd. by the formula: $\kappa = (2 + n + 2c(n - 1))/(2 + n - c(n - 1))$ where c is the vol. concn. of sphere material and n is its thermal cond. A. A. Podgorny

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Heat-resistant micanites. B. M. Tareev, L. A. Epshtein and K. I. Chernyak. *Vestnik Elektroprom.* 11, No. 3, 35-6(1940); *Chem. Zentr.* 1940, II, 1701.—Micanites prepd. from mica waste and either Na silicate or an alkyd were tested for use in electric heaters (resistors); both types were satisfactory. M. Hosch

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Substitutes and the Saving of Lead in the Cable Industry. B. M. Tarrey and V. A. Privesentsov (*Vestn. Elektroprom.* (*Elect. Ind. Herald*), 1941, 12, (5), 11-14; *C. Abs.*, 1943, 37, 3674).—A literature survey.

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Artificial-mica problem. B. M. Te-rev. *Vestnik Elektroteh.* 1943, No. 3, 7-12.—Discussion of the use of bentonite in mica substitutes. G. M. Kosolapoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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TAREYEV, B.M.

The production of glass electric resistors, Moskva, Gos. energ. izd-vo, 1944.
26 p. (50-44428)

TK2851.T38

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREEV, B. M.

Electrical engineering materials, Moskva, Gos. energ. izd-vo, 1946. 231 p. (50-19007)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B. M.

TAREYEV, B. M.

Tareyev, B. M. defended his Doctor's dissertation in the Moscow Power Engineering Institute im Molotov, USSR, on 18 April 1943, for the academic degree of Doctor of Technical Sciences.

Dissertation: "Heat-Stable Electrical Insulation". Resume: Tareyev treated factors affecting the heat stability of electrical insulation, the determination of heat stability of materials, and its dependence on chemical composition, as well as problems related to the thermal conductivity of insulation. He also cited the results of a number of his scientific research works and new production developments dealing with concrete forms of insulating materials with relatively high heat stability: liquid and solid organic materials, aluminum oxide insulation, asbestos materials, glass-fiber materials, vitreous enamels, mica, and its substitutes.

Official Opponents: Profs. N. V. Aleksandrov, N. P. Bogoroditskiy (Doctors of Technical Sciences); G. I. Skanavi, B. M. Gokhberg, (Doctors of Physicomathematical Sciences).

SO: Elektrichestvo, No. 7, Moscow, August 1953, pp 87-92 (W/29844, 16 Apr 54)

PA 4/49T31

TAREYEV, B. M.

Jan 48

USSR/Electricity
Insulating Materials
Insulators

"Work of the All-Union Bureau of Electric Insulation in 1946-1947," B. M. Tareyev, Cand Tech Sci, Sci Secy, All-Union Bu of Elec Insulation, 1 p

"Elektrichestvo" No 1

Briefly touches on major achievements of subject bureau for 1946-1947.

4/49T31

[redacted]

PA 4/49T29

TAREYEV, B. M.

Jan 48

USSR/Electricity

"The Oldest Czechoslovakian Electrical Journal, 'Elektrotechnicky Obzor' (Electrical Engineering Outline)," B. M. Tareyev, Cand Tech Sci, S. P. Inozemtsev, Engr, 1 p

"Elektrichestvo" No 1

Compliments subject journal for the high-level technical information which it has consistently contained.

4/49T29

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B. M.

"Lectures on the 'Electrical Materials' Course" (Lektsii po kursu "Elektromaterialovedeniye") No 3, Electrical Insulating Glasses, Editing and Publishing Division of VZEI (All-Union Correspondence Power Engineering Institute), 1949, 24 pp.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREEV, B. M.

personala, Electrical engineering materials, Izd. 3., perer. Moskva, Gos. energ. izd-vo, 1949
232 p. (50-22181)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B. M.

PA 35/49T27

USSR/Electricity Jan 49
Insulation, Electrical
Bibliography

"All-Union Scientific-Technical Congress on Electrical Insulation," B. M. Tareyev, Dr Tech Sci, Secy, All-Union Bu of Elec Insulation, 2 pp

"Elektrichestvo" No 1

Session was held 4-8 Oct 48 in Leningrad with 389 engineers and teachers participating. Fifty-four reports on electrical insulation problems were submitted.

[redacted] 35/49T27

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B. M.

USSR/ Electricity Electric Power Publications   Apr 49

"New Books on Power Engineering" 1 p

"Elek Stants" No 4

Brief reviews include: N. K. Bodashkev's "Breakdowns in Stream Turbines and Their Prevention," G. K. Zherbe's "Testing Asynchronous Motors After Repairs," T. A. Zikeyev and A. I. Karelin's "Analysis of Power Fuels," "Installation and Operation of High-Pressure Boilers," edited by S. Ts. Fayerman and S. M. Shukher, "Handbook on Electrical Insulation," edited by Yu. V. Koritskiy and B. M. Tareyev, and F. A. Stupel's "Automatic and Protective Relays,"

PA 55/49T27

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

TAREYEV, B. M.

PA 55/49T50

USSR/Engineering May 49
Drying
Currents, High-Frequency

"Review of I. P. Berdinskikh's Book, 'Kiln Drying and Bonding of Ligneous Materials in a Field of High-Frequency Currents,'" B. M. Tareyev, Dr Tech Sci, Netushil, Cand Tech Sci, Docent M. A. Arkhangel'skiy, Engr, E. P. Parim, Engr, 1 p

"Elektrichestvo" No 5

Does not indorse material in this book, which consists of three main parts: generators (electronic tubes, gaseous rectifiers, etc.), drying, and bonding. Points out numerous deficiencies in

55/49T50

USSR/Engineering (Contd) May 49

author's analysis of his subject and lists examples of glaring errors in text. Published by Gostekhizdat Ukraine, 1948, 120 pp, price 5 rubles.

55/49T50

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010006-6"

157T22

USSR/Electricity - Insulation, Electric Dielectrics — Jan 50

"Heat-Resisting Porous Insulation," Prof B. M. Tareyev, Dr Tech Sci, Ya. M. Parnas, Cand Tech Sci, All-Union Corr Power Eng Inst, 5 pp

"Elektrichestvo" No 1

Notes advantages of nonimpregnated inorganic fiber insulation in gaseous medium with high working temperature and sharp temperature impulses. Deduces formulas for breakdown voltage, dielectric constant, and dielectric loss angle of glass fabric as temperature varies. Gives results of experimental verification of proposed formulas, confirming feasibility

[redacted] 157T22

USSR/Electricity - Insulation, Electric (Contd) — Jan 50

of using nonimpregnated inorganic fibrous materials as heat-resistant electrical insulation. Submitted 8 Jun 49.

[redacted] 157T22

TAREYEV, B. M., PROF

TAREYEV, B.M.

AID 757 - X

PHASE X TREASURE ISLAND BIBLIOGRAPHICAL REPORT

Call No.: AF630350

BOOK
Author: TAREYEV, B. M.
Full Title: ELECTRICAL ENGINEERING MATERIALS (Fourth Issue, Reviewed)
Transliterated Title: Elektrotekhnicheskiye materialy

PUBLISHING DATA
Originating Agency: None
Publishing House: State Power Engineering Publishing House
Date: 1952 No. pp.: 288 No. of copies: 25,000
Editorial Staff: None

PURPOSE AND EVALUATION: This book is intended for workers in power system plants and repair shops, and contains the description of properties, grades, testing methods and treatment of materials most frequently used in electrical engineering. The book's value lies in its detailed description of many chemical compounds, which by giving their basic data and characteristics as established by the "GOST" standards, permits an insight into methods used in Soviet power engineering.

TEXT DATA
Coverage: The book is divided into 12 chapters, which give

Elektrotekhnicheskiye materialy

information on dielectric materials in the first 8 chapters and on conductors in the last four. For a more detailed account see "Table of Contents".

Annotated Table of Contents

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Elektrotekhnicheskiye materialy

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66-116

Ch. 4 Congealing Insulating Materials

Resins: thermoplastic and thermo jetting; colophony (also used in oil varnish), "GOST" standard specifications; shellac (only imported); amber; phenolic resins: bakelite, iditol and "sovenit"(basic data attached)developed in the USSR, used in the radio industry ; glyptal, nitrocellulose, acetyl-cellulose, ethyl cellulose; vinyl group: poly-chlorvinyl, perchlorvinyl; polysterene, congealed and emulsion (developed by A. F. Ioffe according to All-Union Technical Specifications of the MKhP and used in radio engineering, basic data given); polyethylene (basic data); polyisobutylene (basic data); polymethylmetacrylate (used for "organic glass"); polyvinylformal; polytetra-fluorethylene (basic data); polyamide resins (including a Soviet make: "Capron"); polysiloxen resin group, (developed by K. A. Andrianov and O. I. Gribanova).

Bitumen: artificial (oil) and mineral (asphalt),"GOST" standard data given.

Drying oil: Linseed oil, tung oil, castor oil (basic data)

Elektrotekhnicheskiye materialy

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Wax: paraffin; ceresin ("GOST" standards); polychlornaphtalene (basic data); oleowax (developed by N. A. Petrov and S. A. Deryabin from castor oil).

Solvents: (a table listing formulae, standards and properties, pp. 88-89).

Varnish: impregnating varnish (types and specifications); enamel and adhesive varnish; oil varnish (types and specifications); cellulose varnish (types and data); aniline-formaldehyde and semi-conducting varnish.

Impregnating and filling compounds: quartz and other compounds for bushings and cables (tables, diagrams, "GOST" standards).

Drying and impregnating insulating materials: diagrams of drying equipment. Research on effects of moisture by Academician P. A. Rebinder, S.M. Lipatov; research on electric properties of various types of hygroscopic dielectrics by M. M. Mikhaylov; the book Teoriya sushki (Theory of Drying) by A. V. Lykov (1950) is mentioned.

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Ch. 5 Fiber Base Insulating Materials 116-136

Wood: properties and treatment, compounds with "uralite" (85% NaF and 15% dinitrophenol).

Paper and cardboard: data and "GOST" standards for paper insulations of cables and capacitors, developed by P. I. Gostev, T. P. Lazarenko, P. P. Bondarenko, M. A. Antonov, B. I. Ushakov and K. I. Dobrynin in 1951; Mica tape ("japanese paper") developed by I. V. Bondarenko and M. D. Dmitriyev; glue paper ("GOST" standards); cardboard ("GOST" standards).

Insulating fabrics "GOST" standards for rayon, cotton and hemp; tapes, rubberized and tarred.

Non-varnish and varnish-treated insulating; basic data; "GOST" standards.

Inorganic fibrous materials: asbestos, composition, "GOST" standards, fiberglass, as developed by M. G. Chernyak, M. S. Aslanova, S. I. Ioffe "GOST" standards; table with basic data and properties on p. 135.

Ch. 6 Plastic Materials 116-168

General information, composition and photo of 150 ton hydraulic molding press. Methods of injecting, blowing,

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Elektrotekhnicheskiye materialy

Pages

and pressing with diagrams of equipment used.

Binders: bakelite type, "GOST" standards, types and basic data.

Organic glass: plexiglass, basic data, used for high frequency expulsion tube, diagram of RTO type.

Laminated plastic materials: "Getinax", new paper-base material developed by N. I. Krestov, V. S. Kvashnin, V. V. Kudryavtsev, V. B. Rekst, and O. A. Butuzova, basic data, types and "GOST" standards; cotton-base "textolite" types, data and "GOST" standards; "glass textolite", glass-base, data; plywood.

Plastic flexible films: vinyl and polysterene (styroflex), basic data.

Rubber materials: natural and synthetic rubber developed by I. L. Kondakov, S. V. Lebedev, N. D.Zelinskiy and B. V. Byzov, types, basic data, and "GOST" standards. Thiuram vulcanized rubber; ebonite, "GOST" standards, table; asbocement, basic data; micalex, basic data.

Ch. 7 Mineral Insulating Materials 168-179

Mica: Muscovite and phlogopite, properties, by M. M. Mikhaylov, E. K. Lashev, K. A. Vodop'yanov, M.I. Mantrov).

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Elektrotekhnicheskiye materialy Pages

Micanites, shape, components and basic data, "GOST" standards.

Various mineral insulating materials: marble, "GOST" standards; slate, basic data; talcchlorite, basic data.

Ch. 8 Glass and Ceramics 179-214

Glass: components, properties, types, manufacturing, use, basic data, table on p. 188.

Porcelain: manufacturing, basic data, types, testing, "GOST" standards for pin type and suspension type insulators (diagrams presented); oil circuit-breakers: VM-35-N type; 110 kv transformer TFN type (diagrams presented)

Various ceramics: Radio- and ultra-porcelain developed by N. P. Bogoroditskiy and I. D. Fridberg, basic data listed. Aluminoxide basic data; steatite, ceramics based on TiO_2 "Rutil" (ticond T80, T60 and T150); segnetoceramics (tibar), developed by B. M. Vul; vilyte developed by V. I. Pruzhinina-Granovskaya and L. I. Ivanov used for grounding.